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**INSTITUTE OF
CORRESPONDENCE EDUCATION**

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B.A. Degree Course

FIRST YEAR

INDIAN MUSIC

Paper - I

Theory of Music - 1

Package - 1

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**UNIVERSITY OF MADRAS.
MADRAS - 600 005.**

B.A. Degree Course
Indian Music.

Paper 1.
Theory of Music - 1.
Fundamental Concept of Music.
Package - 1.

WELCOME

Dear Student,

We welcome you as a student of the First Year B.A. Degree Course in Indian Music.

This subject deals with Paper 1. Theory of Music - 1. Fundamental Concept of Music. which you will have to study in the First year of the Course.

The learning materials for this paper will be sent to you periodically and supplemented by a few contact lectures.

You must be aware that learning through correspondence involves a great deal of self-study. We hope that you will put in your whole-hearted efforts.

On our part we assure you of our help in guiding you throughout the course.

Wish you all the success.

DIRECTOR

II - SYLLABUS

Paper I Theory of Music—I
Fundamental Concepts of Music

- I. Music and its three main aspects—(a) Svara (melodic) (b) Tala (time measure) (c) Pada (Verbal).
- II. Melodic aspect—
 - (a) Technical terms: Nada, Sthayi, Svara, Svarasthana, Sruti, Vadi, Samvadi, Vivadi, and Anuvadi.
 - (b) Svara nomenclature — Twelve svarasthanas and sixteen names.
 - (c) (i) Concept of Raga : Importance and scope of ragas.
(ii) Classification of Ragas — The scheme of 72 melakartas; Kanakangi — Ratnangi nomenclature : Katapayadi Sankhya and its application : Bhuta sankhya : Vivadi and Non—Vivadi melakartas.
(iii) Classification of ragas into Janaka and Janya. Classification of Janya ragas into—Sampurna—Varja; Krama—Vakra; Upanga—Bhashanga : Nishadantya, Dhaivantya and Panchamantya.
(iv) Lakshanas of the following ragas : (1) Mayamalavagaula (2) Sriranjani. (3) Mohana, (4) Sankarabharanam, (5) Hamsadhvani, (6) Shanmukhapriya.
- III. Tala aspect—
 - (a) Technical terms, Aksharakala, Avarta, Kriya, Laya, Graha (eduppu)
 - (b) Sapta talas and the scheme of 35 talas. Chaputala and its varieties: Desadi and Madhyadi talas.
- IV. Notation used in Indian Music. An outline knowledge of staff notation. Ability to reproduce in notation the compositions learnt in the ragas prescribed for Raga Lakshana.

V. Harmony, Melody and Polyphony.

VI. Pada aspect (Verbal)—

Technical terms : Pada; Praasa—Adi and Antya; Anupraasa Yati, Yamaka, Padaccheda; Manipravala sahitya; Svarakshara and Gopucchā alankaras.

III - Scheme of Lessons

Lessons

No.

1. Music and its three main aspects

(a) Svara (melodic,) (b) Tala (time measure). (c) Pada (verbal).

2. Melodic Aspect—

(a) Technical terms : Nada, Sthayi, Svara, Svarasthana, Sruti, Vadi, Samvadi, Vivadi, and Anuvadi.

(b) Svara nomenclature—Twelve

3. Concept of Raga : Importance scope and classification of ragas. Classification of Ragas - The scheme of 72 melakartas; Kanakangi-Ratnangi nomenclature; Katapayadi Sankhya and its application : Bhuta sankhya, vivadi and Non-vivadi melakartas.

4. Classification of ragas into Janaka and Jahya. Classification of Janya ragas into - Sampurnavarja; Kramavakra; Upanga - Bhashanga; Nishadantya, Dhaivatantya and Panchamantya.

5. Lakshanas of the following ragas : (1) Mayamalava gaula, (2) Sriranjani, (3) Mohana, (4) Sankarabharanam, (5) Hamsadhvani, (6) Shanmukhapriya.

6. Tala aspect—

(a) Technical terms: Aksharakala, Avarta, Kriya Laya, Graha (eduppu)

(b) Sapta talas and the scheme of 35 talas. Chaputala and its varieties. Desadi and Madhyadi talas.

7. Notation used in Indian Music. An outline knowledge of staff notation. Ability to reproduce in notation the compositions learnt in the ragas prescribed for Raga lakshana.

8. Harmony, Melody and Polyphony

9. Pada aspect (verbal)—

Technical terms; Pada; Prasa - Adi and Antya, Anuprasa; Yati, Yamaka; Padaccheda; Manipravala sahitya; Svarakshara; Srotovaha and Gopucchā alankaras.

IV - OVERVIEW

This Package of learning materials contains all the nine lessons as per the scheme of lessons.

V-STUDY UNIT

LESSON - 1

Introduction

Music and its Three Main Aspects

We know Music as one of the Arts. There are different kinds of art like, Painting, Dance, Drama, Sculpture, poetry and Music. What are the Arts? And how are they different from other activities like, say, cooking, car driving, carpentry, learning physics and economics?

The aim of art lies in activities which are not intended to achieve an outside goal. But the activity itself is important and the enjoyment of the art lies in seeing how beautifully the activity takes place. The activity is an end in itself. One may object, any activity like cooking or car driving can be done beautifully. It is true that all activities can be done beautifully and we do use the expression that a certain work has been done very artistically. But cooking or driving, even though done artistically, is nevertheless intended to achieve some other object in view like preparing food for eating or transporting one from one place to another. But sculpture, painting, music and the like are activities which do not intend to achieve any mundane benefit and the doing or the performing of these arts themselves is the end of these arts. The arts are also regarded as an eternal source of delight and entertainment. This is because they present structures for perception which delight in themselves, without arousing any urge to action or the desire to possess them. They provide appearances which please merely by appearing. They not only delight but wholly absorb the attention so that all thought of self is forgotten.

The art of music has for its material, sound. In music one creates with sound a recognisable structure or form. Sound has two aspects to it. One is the syllabic aspect which is bestowed on sound by the various parts of the mouth which are touched while producing the sound. The other aspect is that of the pitch. This causes differences in sound due to which one sound is generally said to be higher or lower than another or of the same level. It is this aspect of the pitch of sound that is made use of in weaving a picture with sound. The word 'tone' may be used to designate sound con-

sidered from the point of view of pitch. The essential characteristics of music lies in the tonal structure which is created. In what we call classical music it is the beauty of this tonal form that is appreciated. And wherever music is employed, as for instances in bhajana, marriage songs, film songs, etc., it is this tonal form which is essentially present. Apart from this tonal form there are other limbs in music, as for instance, the syllabic aspect of sound, which makes up meaningful words and meaningless words. Meaningless words are met with in forms such as the *tillana*. The duration of the tones also plays a part in the rhythm. In the different kinds of music the emphasis could shift from the tonal structure to the words, meanings or rhythm. For instance, in bhajana, the words which are devotional in nature are very important and push to the background the tonal structure.

Svara :

In the Indian languages the word for music is 'Sangita'. In Tamil, the term used is 'Isai'. With reference to sangita it must be noted that the term had a different significance in the early period of Indian history (before 13th Cent. A.D.) but has gradually come to be a synonym of music. The art of a tonal structure which is generally designated by the term *svara*. This term *svara*, as we shall see later, is also used to denote specifically the units of melody. But here it is used in a wide and general sense, to refer to the tonal aspect of music. By tonal structure is meant the various movements of sound from one pitch to another. A pitch may be roughly understood as a particular stationary level of sound. The progression from one pitch to another is successive and different pitches are not sounded simultaneously. Simultaneous utterance of sounds of differing pitches is found in Western music. The structure woven by the sounds uttered successively is called melody. The term *svara* thus denotes the melodic aspects of music in general. Melody is created through the human voice and through musical instruments like the *vina* and *nagasvaram*.

Pada :

The other aspect of music also has its basis in sound, namely the words of language which occur in the songs. The term *pada* denotes this aspect of music. *Pada* and *svara* are not two different entities constituting music but are two different aspects of the same sound which serves as the material for music. When we look not at the pitch aspect of sound but at the syllables expressed by it, the groups of these

syllables constitute pada. In speech too we have the two aspects, 'the syllabic' which forms the words and 'the pitch variations' seen in the form of accents. However the communication of the words and its meaning is the main purpose of sound in speech. Pada can be meaningful words as well as meaningless. For the most part only meaningful words are found to occur in musical compositions. One may ask "If pada and svara are inseparable aspects of sound, where is pada when music is played on instrument?" Pada is very much there in the melody played on instruments as the plucking, bowing and other stresses resemble the consonants of the words. The unstressed or unplucked portions could be taken as vowels. In South Indian classical music, there is the tradition of performing on the instrument what is sung. And in songs mostly meaningful words are employed called sahityam and these are mostly devotional in nature, in praise of various gods and goddesses. Song texts are in the form of epithets or descriptive of the deeds of gods. Sometimes meaningless syllables like ta da ri, tanom tanana, are also employed as seen in alapana and tillana. The meaningful words are set in any one of the South Indian languages (Tamil, Telugu, Kannada, Malayalam) or in Sanskrit.

TALA

The third aspect of music relates to the duration of the sound. Sound, too, like other actions takes place in time. And in songs we observe that the melody expresses itself in regular pulses or stresses i.e., sound units of uniform, finite duration are formed in certain patterns. This manifestation of patterns is known as the rhythm or laya of the song. And in Indian music, there is also a device by which the flow of and this rhythm is regulated and controlled. This device is tāla and involves certain actions of the hands which create regular time signals which keep the rhythm from unintended acceleration or deceleration. Certain forms like ālāpana which do not express a perceptible rhythm are not accompanied by tāla. Thus tāla, though it is not a permanent feature, is yet an integral part of South Indian classical music and represents the third aspects. Apart from regulating the flow of music, the tāla also creates time units of small and large durations against which the duration of music is measured. Usually, a fixed section of time is repeated over and over again throughout the length of the music and this may be called a time cycle. The entire music or its sections are measured in terms of so many cycles or avartas. In this way tāla becomes a time measure and this time cycle also presents a temporal background or frame work on which the melodic structure is woven.

LESSON : 2

Melodic Aspect

The study of music has two aspects to it. One is the learning or training in its performance and the other is gaining knowledge about performed music. While the first is commonly called the practical aspects, the second is the theory. Unlike as in Science subjects such as Physics and Chemistry, where the practical is usually a demonstration of the observed theoretical deductions, in music, the practical is the main art itself and theory is a description of it in the medium of language. And hence theory always follows and also has to conform to the practical. The knowledge of the practical art is gained directly through instruction from a teacher. Theory is an attempt to describe the music through the medium of language and hence can never be a substitute for or be understood without the knowledge of practical music. Unless one is trained in the art, he will be unable to appreciate or understand the theoretical description of it. And thus, knowledge of the art is an essential pre-requisite for understanding its theory. However the reverse is not true. In other words training in the art has to be acquired directly through instruction and cannot be obtained through the study of theory.

THEORY :

Theory, as explained above, involves the description of music through the medium of language. In fact the very talking about the art is itself theory. And, in an effort to describe music, one has to make use of or coin a number of terms and phrases which represent or stand for particular activities in music. Even the word 'music' is a theoretical term which distinguishes this art from other arts and identifies its essential characteristic as residing in the tonal structure. And gradually we go on to the analysis of music into different aspects and naturally more coin terms to denote the different aspects. Svara, pada and tāla broadly identify the different aspects of music. These have already been explained above. The entire theory of the description of music can be brought under these three heads. For instance, the concept of rāga, the classification of rāgas, sāṅgatis, gamakas, etc. come under the svara aspect. The prosodical details like prāsa, yamaka, and the theme come under the pada aspect. The tāla aspect

deals with the different talas and the elements of tāla like kriyā, māga, etc.

The description of the various forms in which music manifests itself, for instance, varnam, kṛti, etc. covers all the aspects, svara, tāla and pada. The study of music also includes the contribution of the composers of various songs and a study of their styles and to some extent the biographical details which throw light on their contribution and styles. Apart from these, a deeper study of theory is undertaken through a study of the theoretical writings of the earlier periods and also study of other systems of music which helps one to understand one's own system in the proper perspective. Knowledge of the musical instruments which are employed for performing music also comes within the field of theoretical study. These are roughly the areas of study which come under the purview of music theory.

Our study of theory begins with the understanding of certain fundamental concepts that have been formulated while analysing present day music. These cover the aspects of svara, tāla and pada, namely the concept of rāga, the classification of ragas, the svaras occurring in music; the different types of tālas, the scheme of thirty five tālas, the elements of tāla; the rules governing the syllabic aspect of music, and the literary aspect. But before going into the concepts under each aspect we shall familiarise ourselves with the technical terms which are employed for describing the different activities and operations in music. The svara aspect is taken up first.

In the svara aspect of music, we shall be trying to understand the basic concepts relating to the melodic part of music. In describing the melodic part of music, many terms are employed and we should first try to understand what each term denotes and then go to the understanding of the concepts based on these terms. The terms that we will be dealing with here are - Nāda, sthāyī, svara, svarasthāna śruti, vādī, samvādī, vivādī and anuvādī.

NĀDA

The basic material of music, i.e., sound, is the first idea which needs to be designated by a term. Nāda, a Sanskrit term, is commonly used to denote sound in music. There are other terms like sabda, dhvani, etc. in Sanskrit and Osai and Ōli in Tamil which are also employed. The term Nāda however has a wider and deeper signifi-

cance. While Nāda means sound in general, it also has a restricted connotation [i.e., musical sound. Musical sound is not different from the sound of speech, but Nāda indicates the sound, which has at the root of its production a desire to produce music. In this respect it is different from the second which is uttered in speech for communication. Nāda is undifferentiated sound before its articulation into svaras. Carrying this notion further, Nāda seems to denote the abstract musical idea behind the sound. And this musical idea originates in the human body and gets concretised when sung or played on an instrument. Nāda is at the base of both vocal and instrumental music, the voice and the instrument being merely vehicles for its expression. Ancient Indian writings also speak of "Anāhata Nāda" which were tonal structures heard by yogis in their state of meditation. As different from this, the nada which formed the basis of music created by men was called Āhata Nāda.

The early Indian thinkers have described the process of production of Nāda. Firstly for Nāda to be produced there must be a desire to produce music. This desire occurs in the atma (soul). The atma stimulates the manas (mind) which in turn activates the fire in the human body said to be residing in the brahmagranthi (the region behind the navel.) The fire reacts with the prāna (vital air) and rises through the naval region, heart, throat, and head and finally emerges as sound through the mouth. This process is also concisely described as the reaction between air and fire i.e., a combination of prana and agni within the human body.

The conception of the production of sound according to modern physics however is different. It is said to be produced by the striking of air against the vibrating vocal chords. Apart from this deep significance of the term Nāda, the term is commonly used to refer to the good quality of the sound produced by musical instruments. We come across statements like. "The 'nādam' of this vina is good, the nādam of that tambura is good".

Thus we find that the term Nada has differing connotations starting with simple sound to the primordial, undifferentiated sound in music. And in fact Indian tradition viewed the concentrated practice of music as a worship of nada (Nādapāsana) thus deifying the concept and has gone even further by elevating Nāda to the 'status of the Absolute i.e., that permanent entity whose manifestation is this world, objects, Universe etc. The Absolute referred to as

"Brahman" by Philosophers has been referred to by the Musicologists as "Nāda-Brahma"

Norwithstanding these estoteric and mystic connotations it is sufficient for us to understand the term Nada as denoting sound in music.

STHĀYI

In our attempt to learn terms, as we go from the general to particulars in music, we come next to the term 'sthāyī'. Nada as we have seen above denotes sound in general, sound which forms the material of music. However, in order to describe the structure of music, nada alone will not do, we require more terms. So we go on to analysing nada into that range of the sound spectrum in which movements of melody take place. This sound spectrum is marked out into regions which though made up of different sounds, yet exhibit some similarity. Normally three regions are marked out as suitable for the creation of musical structures. These regions are called sthāyī and the three sthāyī-s are Mandra, Madhya and Tara.

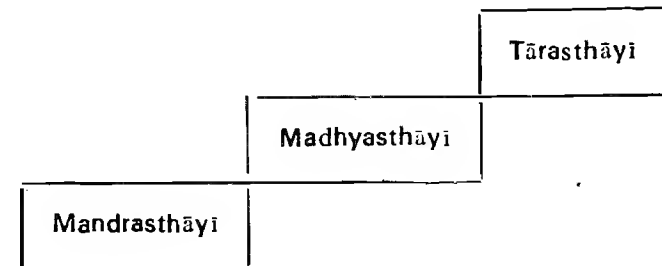
There exists a specific relationship between the Nāda-s occurring in the three sthāyī-s. Any particular sound in a sthāyī has a 'similar' sound in another which is 'double' in pitch. Thus in the entire spectrum of sound, starting from the lowest audible sound one can gradually go on through higher pitched sounds and then arrive at the sound which is double in pitch as compared to the sound we started with. This sound though double in pitch, yet appears similar. Why these two sounds should appear similar is a question that cannot be answered, but the existence of such a phenomenon furnishes the most basic relationship in music. A number of sounds come within the audible range. Of these some sound 'higher' than the others while some sound 'lower'. But the most fundamental relation obtaining between two pitches is when a sound is double in pitch as compared to another sound. These sound appear to be same but sounding from different 'level's. It is this fundamental relationship which forms the basis for dividing Nāda into the three ranges called 'sthāyīs'. Though the audible range of sound could be divided into more than three stāyis in our system the melodic movement takes place normally in three sthāyīs.

Thus all sounds in Mandrasthāyī have corresponding sounds in madhyasthāyī whose pitches are double those in the mandrasthāyī and

these sounds in madhyasthāyī have corresponding sounds in Tarasthāyī whose pitches are again double those in madhyasthāyī.

Although it is the word 'Sthāyī' which occurs in common parlance the term which traditionally occurs in earlier theoretical writings is "Sthāna". Sthāna means "place". The three kinds of nada Mandra, Madhya and Tāra are said to arise from the three sthanas or places in the human body namely, heart (Hrd), throat (kantha), and head (actually the region behind the nose Sira or murdha), respectively.

Even though we have said that the melodic movements are normally spread over three sthāyīs, at times movement into the region higher than tara sthāyī and the region below mandrasthāyī are noticed in the rendering of ālāpana and other manodharma aspects. In such cases the sthāyī higher than Tāra is called atitāra and the one lower than Mandra is called Anumandra.

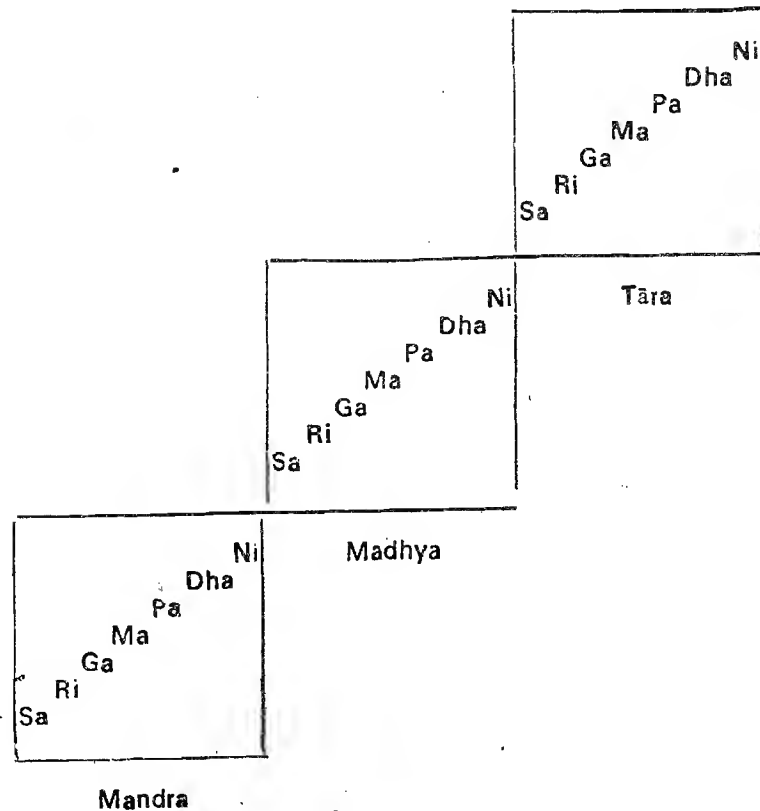


SVARA :

Starting with Nāda, we have narrowed our area through the word 'sthāyī' which denotes the well-demarcated regions of nāda and finally arrive at the term "Svara" which denotes the tonal units - of a melodic line. Svaras are the basic units into which a melodic structure can be analysed. Conversely svaras are viewed as the tonal units which are articulated or combined to construct a melody. If sthāyī-s are large demarcated regions of sound, then svaras are small demarcated regions within a sthāyī, the smallest tonal regions that are recognised as the units of melody.

A melodic line can be analysed into small units which can be fixed pitches of sound or fluid tonal movements. Thus svara represents a fixed pitch as well as a small range of sound. The number of svara units that take part in a melody is mentioned with reference to

one sthāyi range. In one sthāyi the number of svaras are seven. The seven svaras are assigned names which denote their position in the ascending order of pitch. The names are Śaḍja, Ṛṣabha, Gāndhārā, Madhyama, Pañcama, Dhaivata and Niṣāda. With Śaḍja being the first svara in a sthāyi. The names of svaras prevalent in the Tamil tradition are kural, Tuttam, Kaikilai, Uzhal, Ili, Vilari and Tāram. While the svaras in one sthāyi are seven, if other sthāyis i.e., the entire three sthāyi range of melodic movements are taken into account, the number of svaras is twenty-one. However the twenty-one svaras are not assigned different names. The same names Śaḍja, Ṛṣabha etc. are assigned and the name of the sthāyi to which they belong is prefixed to them. Thus svaras in the tārasthāyi are referred to as Tāra-sthāyi-Śaḍja. Tārasthāyi-Ṛṣabha, etc. and those in Mandrasthāyi as Mandrasthāyi-Niṣāda, Mandrasthāyi-Dhaivata, etc. Normally svaras of Madhyasthāyi do not carry any prefixes. The seven svaras are also designated by the syllables Sa, Ri, Ga, Ma, Pa, Dha and Ni, which are the abbreviated forms of the names Śaḍja, Ṛṣabha, etc. respectively.



The syllables sa, ri, ga, etc. are also employed in singing.

The ranges of the different svaras are not always the same. In fact it is the variety in the dimension of the svaras that is one of the factors in bringing about different melodies. The variety in the dimensions of svaras is defined on the basis of Svarasthāna, a term which we shall take up next.

SVARASTHĀNA

The svara, as described above, is to be viewed as a tonal range and also as a pitch position. This fixed or static form of each svara becomes the basis for identifying that svara. These fixed positions are called the svarasthānas of the svaras.

Among the seven svaras, except Śaḍja and Pañcama, each of the remaining five-Ṛṣabha, Gāndhārā, Madhyama, Dhaivata and Niṣāda - has a variable fixed positions as seen in the melodies based on different ragas. The static forms or the svarasthānas of these varieties of Ri, Ga, Ma, dha and Ni total ten. And along with one svarasthāna each of Śaḍja and Pañcama, the total number of svarasthānas is twelve.

Among the twelve svarasthānas, the first and the eight are assigned to Śaḍja and Pañcama respectively. The second belongs to Ṛṣabha. The third and fourth could be the basis for Ṛṣabha or Gāndhārā. The fifth is that of Gāndhārā. The sixth and seventh svarasthānas serve the different varieties of Madhyama. The ninth is of Dhaivata. The tenth and eleventh svarasthānas could be the basis of Dhaivata or Niṣāda. And the twelfth or the last svarasthāna is that of Niṣāda.

Svarasthāna No.	S v a r a
1	Śaḍja
2	Ṛṣabha
3	} Ṛṣabha or Gāndhārā
4	
5	Gāndhārā
6	} Madhyama
7	
8	Pañcama
9	Dhaivata
10	} Dhaivata or Niṣāda
11	
12	Niṣāda

These svarasthānas have also been assigned names, which are shown below. The syllables Rī, Ga etc. with different vowels suffixed to them are designated for these svarasthānas.

Svarasthāna No.	Name		
1		Ṣaḍja	Sa
2		Śuddha—Rṣabha	Ra
3	}	Catuṣśruti—Rṣabha	Ri
		Śuddha—Gāndhāra	Ga
4	}	Ṣaṭśruti—Rṣabha	Ru
		Śādhārāṇa—Gāndhāra	Gi
5		Antara—gāndhara	Gu
6		Śuddha—Madhyama	Ma
7		Prati—Madhyama	Mi
8		Pañcama	Pa
9		Śuddha—Dhaivata	Dha
10	}	Catuṣśruti Dhaivata	Dhi
		Śuddha Niṣāda	Na
11	}	Saṭśruti Dhaivata	Dhu
		Kaiśika Niṣāda	Ni
12		Kākali Niṣāda	Nu

It should be noted that in singing only the syllables Sa, Ri, Ga etc. are employed and not Ra, Gu, Mi etc. We notice in the above table that svarasthāna Nos. 3, 4, 10 & 11 form the basis for two svaras each. If, for instance, the svarasthāna 3 is the basis of a Gāndhāra then it will be called śuddha—gāndhāra and if it is the basis of Rṣabha then it is called Catuṣśruti—Rṣabha.

One important fact to be borne in mind is that in music the number of fixed positions of svaras or the pitch position in which we find svaras halting, are actually innumerable and so could be the svarasthānas. But for the purpose of general understanding the svarasthānas have been limited to twelve. And hence each svarasthāna has to be regarded as an approximation of the various halting positions around it. Hence Svarasthānas are series of pitches meant for broadly identifying the svaras. And it is now a practice for a particular variety of a svara to be referred to by the name of its svarasthāna itself. Thus, for example, if the svarasthāna of the gāndhara in a particular raga is Antara—gāndhāra then the svara itself is referred to as Antara gāndhara. However technically the names of svaras are

simply ṣaḍja, rṣabha' gāndhara etc. while śuddha—rṣabha, catuṣśruti—rṣabha etc are names of only the svarasthānas.

SRUTI

While svarasthāna is a theoretical entity for identifying svaras, sruti is again a theoretical unit for defining the svarasthānas. When the different varieties of a svara are distinguished on the basis of the svarasthāna—s, sruti acts as a unit for measuring the intervals between svarasthānas or else sruti could be said to measure the tonal ranges of svaras.

Sruti is a small interval of sound which is taken as a unit for measuring bigger intervals between the svarasthānas. Just as with the help of a known length of space namely a metre we measure greater lengths of say cloth, similarly with the help of the śruti unit we measure tonal intervals as being of two śruti (dvi-śruti), three śrutis (tri śruti), etc. However śruti is not a precise measure like a metre, but a rough measure like a teaspoonful of sugar. The measure of a śruti can be understood as the smallest interval that is necessary for a normally trained ear to distinguish one sound as being higher or lower than another. This itself makes it clear that śruti is a flexible or rough measure. Rather it is a musician's measure for classifying the variety of svaras occurring in rāgas as different from the physicist's units like savart, cents.

It is with the help of a sruti that the rṣabha of Tōḍi is defined as having an interval of two śrutis and is distinguished from the rṣabha of Bhairavi which is of an interval of four śruti-s. In fact the third svarasthāna is called Catuṣśruti-rṣabha because the interval between that svarasthāna and ṣaḍja is one of four śrutis—"Catuṣ" in Sanskrit means four. And similarly the fourth svarasthāna is at an interval of six śrutis from ṣaḍja and is therefore called Ṣaṭśruti-rṣabha (Ṣaṭ in Sanskrit means six).

The word Śruti apart from denoting a tonal measure is used in some other related senses too. For instance in South Indian Music, the pitch level on which a singer or an instrumental player settles his madhyasthayi ṣaḍja is referred to as his Śruti. A singer fixes his madhyasthāyi—ṣaḍja at a pitch level below which he can comfortably descend in an interval of at least five svaras and above which he can comfortably sing a minimum of one and a half sthāyis. A player on stringed instruments fixes the string turned to madhyasthāyi ṣaḍja at

such a pitch level which he could comfortably play on strings, without there being excess tension or low tension in them. This Śruti is also called Ādhāra Śruti. To keep the madhya-sthāyi-ṣaḍja from shifting off the Śruti, a musical instrument constantly sounding the Śruti is employed in music performance. The instruments sounding the Śruti are called Śruti vadyas or simply Śruti. Tambura, Ottu and the Śruti box perform the function of Śruti. In English this Śruti is referred to as Drone.

Occasionally in rendering songs based on certain rāgas there is practice of raising the level of śruti from madhyasthāyi-ṣaḍja to the madhyasthāyi-madhyama. Now madhyasthāyi-ṣaḍja is fixed at this raised level, In such cases the śruti is called madhyama-śruti.

VADĪ, SAMVĀDĪ, VIVĀDĪ and ANUVĀDĪ

We have seen now "Sthāyi" establishes the most basic relationship between svaras namely one svara being double another. Instead of going on giving different names to svaras occurring in music we are enabled to use the same seven names again and again, in different sthāyis. However within the seven svaras in a sthāyi the relationships that exist between svaras in shaping the melody are those of vadi-Samvādī, Vādivivādī and Vādī-Anuvādī.

A piece of music is a structure built up of svaras. Of these some are vital to the melodic arrangement. They are firmly established in the melodic structure, they occur again and again and the whole structure appears to be built around them. These svaras are called vādī. Other svaras which are concordant with them, i.e., which sound pleasing in relation to the Vādī, are called samvādī. They also occur frequently in the melodic structure and contribute to its rakti or pleasantness. Certain svaras have a discordant relation with the vadi svaras and their occurrence in the melodic structure has to be restricted. These are called vivādī. There are still others svaras which neither contribute to nor detract from the pleasantness of the melody. These are called anuvādī. Thus all the svaras which can be identified in a musical structure can be classified into these four-types namely Vādī, Samvādī, Vivādī and Anuvādī.

Samvādī:

The Samvādī relationship is recognised firstly between Ṣaḍja and Pañcama and between Ṣaḍja and Madhyama. In the case of Madhyama it is the variety based on the Śuddha-madhyama

svarasthāna. When any other pair of svaras is separated from each other by an interval which is the same as that existing between Ṣaḍja and Pañcama or that existing between ṣaḍja and śuddha Madhyama, then samvādī relationship exists between those two svaras. The samvādī resulting out of intervals equal to that between Ṣaḍja and Pañcama is popularly referred to as Samvādī of Sa-Pa bhava or Sa-Pa variety. And the samvādī resulting out of intervals equal to that between Ṣaḍja and Śuddha-madhyama is referred to as Samvādī or Sa-Ma bhāva or Sa-Ma variety.

We give below the Tables giving the list of svaras with the corresponding Samvādīs. The table consists of samvādī-s of Sa-Pa variety and the samvādīs of Sa-Ma variety.

Sa-Pa Samvādī

Vādī	Samvādī
1. Ṣaḍja	Pañcama
2. Śuddhaṛṣabha	Śuddhadhaivata
3. Catuśśrutiṛṣabha Śuddhagāndhāra	{ Catuśśruti dhaivata Śuddhaniṣāda
4. Ṣaṭśruti ṛṣabha Sādharaṇagāndhāra	{ Ṣaṭśruti-dhaivata Kaiśikiniṣāda
5. Antara-gāndhāra	Kāikali-nisāda
6. Śuddhamadhyama	Ṣaḍja (tārasthāyī)

Sa-Ma Samvādī

Vādī	Samvādī
1. Ṣaḍja	Śuddhamadhyama
2. Śuddhaṛṣabha	Prati-madhyama
3. Catuśśruti ṛṣabha Śuddhagāndhāra	{ Pañcama
4. Ṣaṭśruti-ṛṣabha Sādharaṇagāndhāra	{ Śuddha-dhaivata
5. Antara gāndhāra	{ Catuśśruti-dhaivata Śuddhaniṣāda
6. Śuddhamandhyama	{ Ṣaṭśruti-dhaivata Kaiśikiniṣāda

The samvādī (Sa-pa or Sa-Ma) of a svara can be of higher pitch or lower. That is, Pañcama the samvādī Śaḍja is a higher pitched svara. On the other hand the Sa-Pa samvādī of Pañcama is Śaḍja and is a lower pitched svara. Thus Śaḍja and Pañcama are mutually samvādī-s. In the same way the Sa-Pa Samvādī of Śaḍja in the lower direction is Mandrasthāyī madhyama. The principle of Samvādī is seen to be observed in of the construction of musical compositions. The commencing notes the pallavi section and the anupallavi section bear the samvadi relationship in many compositions.

Vivādī :

In present day South Indian Music the vivādī relationship is recognised between only some specified pair of notes. These are-

VĀDĪ		VIVĀDĪ
Suddha-ṛṣabha	—	Suddha-gandhāra
Śaṭśruti-ṛṣabha	—	Antaragāndhāra
Suddha-dhaivata	—	Suddha-niṣāda
Śaṭśruti-dhaivata	—	Kākalī-niṣāda

The ragas in which vivādī svaras occur are also popularly called Vivādī ragas, e.g., Varāli, Nāttai, Candrajyoti.

Anuvādī :

Those svaras which do not bear either a Samvādī or a vivādī relationship with the vadi are called Anuvādī svaras e.g., Catuṣśruti ṛṣabha is an anuvādī of Śaḍja and Pañcama is an anuvādī of Sadharanagāndhāra. In musical composition the commencing notes of pallavi and anupallavi some times bear anuvādī relationships too.

Nomenclature of Svaras

We have till now familiarised ourselves with certain fundamental terms used in the Svara aspect of music. We shall now move over to understand Rāga and its concept. Rāga is the basis for the construction of melodic structures. There are many rāgas, it will also be necessary to classify them in order to gain a general knowledge about all of them. But before going on to that we shall write out separately the names of svaras and svarasthānas. These have already

been mentioned while dealing with these terms, Yet we shall go over them once more without discussion of the meaning of the terms.

SVARAS

Names

1. Śaḍja	...	Sa
2. Ṛṣabha	...	Ri
3. Gāndhāra	...	Ga
4. Madhyama	...	Ma
5. Pañcama	...	Pa
6. Dhaivata	...	Dha
7. Niṣāda	...	Ni

Names of SVARASTHĀNA-S

Sl.Nō.of Svarasthānas

N a m e s

1.	Śaḍja	...	(i)	Sa
2.	Suddha-ṛṣabha	...	(ii)	Ra
3.	{ Catuṣśruti-ṛṣabha Suddha-gāndhāra	...	(iii)	Ri
		...	(iv)	Ga
4.	{ Śaṭśruti-ṛṣabha Sādhāranagāndhāra	...	(v)	Ru
		...	(vi)	Gi
5.	Antara-gāndhāra	...	(vii)	Gu
6.	Suddha-madhyama	...	(viii)	Ma
7.	Pratimadhyama	...	(ix)	Mi
8.	Pañcama	...	(x)	Pa
9.	Suddha - dhaivata	...	(xi)	Pa
10.	Catuṣśruthi-dhaivata Suddha-niṣāda	...	(xii)	Dhi
		...	(xiii)	Na
11.	Śaṭśruti - dhivata Kaiśiku niṣāda	...	(xiv)	Dhu
		...	(xv)	Ni
12.	Kakali niṣāda	...	(xvi)	Nu

We see that there are twelve svarasthanas for locating the different varieties of the seven svaras. And since in some cases one svarasthāna itself serves as the basis for two different svaras, the names of the svarasthanas total more than twelve. For instance when the svarasthāna No. 4 serves as the reference for a ṛsabha then the name of ṛsabha is Satsruti ṛsabha. And if the same svarasthāna i.e., No. 4 forms the basis for a gāndhāra then its name is Sādhārangāndhāra. Thus, the names assigned to the svarasthānas total sixteen though the number of svarasthānas is actually twelve. The svarasthānas which have been assigned two names are No. 3, 4, 10 & 11.

Before we conclude we should understand one point about the nomenclature of svarasthanas serving two svaras. The third svarasthāna can function as a gāndhāra only if the second has been occupied by a ṛsabha. In other words the occurrence of śuddha gāndhāra necessarily means that śuddhaṛsabha is also present. Again the fourth svarasthāna can be a gāndhāra only if the second or third svarasthāna is a ṛsabha. e.g., Śuddhaṛsabha - Sādhāranagāndhāra; Catuṣśruti-ṛsabha - Sādhārapagāndhāra. And again if the fourth svarasthāna is a ṛsabha then gāndhāra can exist only on the fifth (i.e., ṣaṭśrutisabha on the fourth and Antara gāndhāra on the fifth). The same situation exists in the case of Dhaivata and Niṣāda too. The purport of the above statement will become clearer as we proceed to the subsequent topics.

LESSON

Concept of Raga Importance, scope and classification of Ragas

Introduction :

The fundamentals of Indian Music are bhava, raga and tala. Bhava generally means expression or conveying one's experience. In music & Dance, bhava plays a vital role. The emotional aspects of these fine arts is conveyed through bhava. In Bharatanatyam, the classical dance of South India, bhava is expressed through the gestures of hands, face, gait and other bodily movements.

Music is a language by itself. In a song, the words or the text-content convey the composers' thoughts and experiences, sometimes descriptions of situations and so on. These depict the aspect of bhava only partially, as the expression in music is conveyed also through melody and rhythm. The melodic aspect of Indian Music is categorised as raga and the rhythmic aspect tala. The bhava conveyed through the meaning of the words is termed artha-bhava and that through melody raga-bhava,

Raga is the fulcrum among the three basic elements of music, namely, bhava, raga and tala, i.e., raga acts as the central force balancing bhava and tala in music. A composition in classical music aims at the unification of the three elements in proper proportions.

The word raga means passion, attraction or attachment. As Music is the language of emotions, and the medium of expression of the various experiences of the artist and the composer, the aspect of bhava cannot be eliminated from the essence of raga. Ragas are melodic patterns which provide the emotional basis for Music. They form the basis of expression of the subtle shades of moods which can be expressed with or without words. Further, it can be observed in certain folk-songs, we come across words which are meaningless such as, 'Elalo' 'llasam' and so on. However, the simple tunes infuse in us a spirit of joy, community-spirit and other emotional feelings.

In the exposition of a raga, there is a definite flow of an under-current of rhythm. Actual rhythm or keeping of time may not be specified; but a distinct tempo either slow or fast is apparent in the expositions of raga-forms or melody-types.

Concept and Raga, importance and scope :

The concept of raga is an ancient one; it is realised through absolute music, music which is independent of sahitya or words and tala or time measure, absolute music transcends language and rhythm.

The aesthetics of melodic patterns constitute the concept of raga. This forms the essence of music. So great is the emotional impact created by the melodic patterns, devoid of words, that this can be termed absolute music. This explains why one is moved by instrumental music. Hence raga is the very soul of music.

The sapta-svaras form the basis of raga. From the various permutations and combinations of these sapta-svaras, many patterns simple and complex are formed and developed. In thus forming, each of these patterns assumes a vivid personality which bears a specific stamp of individuality. Here an analogy can be drawn to human forms. For instance, let us take the human face. The face consists of two eyes, ears, nose, mouth and a forehead. In the millions and millions of people in the world, we cannot find two identical faces. There may be slight resemblances or glimpses of likeness between two persons, but never a replica of the one in another. Similarly in the world of music, we see this vast diversity.

The nearest appropriate word for raga in English is scale : but a scale is not a raga.

The word scale is derived from the Latin word *scala* meaning a ladder. Any graded arrangement is a scale. A musical scale may be defined as 'a graduated ladder-like arrangement of notes in order of pitch, from a given tonic to its octave, both inclusive.' The orderly arrangement of this series will be : sa ri ga ma pa da ni and sa of the higher octave. The series of the sapta-svaras viz. sa ri ga ma pa da ni, is called a sthayi or an octave in common usage, though octave refers to the group of eight notes in a musical scale.

Ragas are formed by the chosen number of svaras within the sthayi. They can be seven, six or five. They may take any variations

of the svaras—namely the komal and tivra or the flat and the sharp varieties. Also they may not be homogeneous i.e., if in the ascent, the raga takes only five notes, the descent will consist of five, six or seven notes, sometimes even in a zig zag manner—vice versa. Tradition has established that the aesthesis of the melodic form gets deteriorated if the number of svaras in ascent and descent comprise only four. If four svaras appear in the ascent it should be compensated with one or two more svaras in the descent—or vice versa. It should be noted here that the importance is given to the pleasing effect produced by the raga forms.

Raga is the basis of all melody; it may be defined as a melody-mould. A raga consists of a series of svaras which bear definite relationship to the tonic or adhara-shadja and also to each other. The svaras occur in a particular sequence. Hovering round the principal svaras of the raga, svara-patterns are woven based on scientific laws and aesthetic values. For every raga, certain rules are involved in the grouping of the svaras. Such phrases form the sancharas which build up the development of the raga. Some sancharas bear such a definite character and individuality that even a single such phrase can reveal the svarupa or form of the raga: for example, the phrase $ga_2 ri_2 ga_2 ma_1 pa da_2 pa sa$ is rendered, immediately we visualize the raga Begada, while the phrase $ga_1 ri_3 ga_1 ma_1 pa da_1 pa$ immediately brings the swarupa of Bhairavi.

The krama or the order of svaras of a definite arohana and avarohana is prescribed for each raga. This marks the outline or framework on which the raga is formed. Each raga has a form of its own possessing individual characteristics. This form is termed raga-svarupa which demands aesthetic applications of the sancharas. Sampradaya or adherence to tradition is an important factor here. These aspects constitute the raga-lakshana. The theme of the raga is gradually elaborated observing its lakshana, or the general rules and laws ascribed to the raga. The improvisation is termed raga-alapana. Generally before rendering a composition, the raga-alapana is given as a prelude. Also recitation of slokas or verses is rendered interwoven with raga-alapana. This is not learnt as a composition or any musical form, but is expected to be rendered as an essay, where the performer builds the central idea with his imagination and creativity. For a beginner, the ability to elaborate a raga depends to a large extent on the repertoire of compositions that he has, and also on kelvi-jnanam or the knowledge acquired through listening to the

exposition of ragas and compositions in the ragas rendered by eminent masters and artists. A feeling for the raga, in fact, for every swara, is needs for attempting a raga-alapana.

In ancient music, the word raga was not used. Instead, the words jati and mucchana were used. The word grama was used in place of scale. The three ancient scales of Indian Music are the Sadja-grama, the Madhyama-grama and the Gandhara-grama. The sadja-grama corresponds to the modern Kharaharapriya scale. The others two gramas did not have the correct sruti-value or the exact pitch for the Panchama-svara, but paved the way for the emergence of Pratimadhyama-ragas

Bharata, in his Natyasastra, one of the earliest treatises on Indian Music, speaks of the fourteen jatis and mucchanas arising out of the sadja and madhyama gramas, by modal shift of tonic. - i.e., when the rishabha of a scale is taken the fundamental or the sadja, the gandhara of the former becomes rishabha for the new scale and so on, forming a complete new scale. The technical term for such a process is 'graha bheda'. The same practice has been followed in early Tamil Music also. All these facts reveal the development of the conception of raga has been a continuous one from ancient times.

The earliest treatise on Indian Music in which the word raga is mentioned and defined is Matanga of the 5th century. The verse is as follows:

योरसौ ध्वनिविशेषस्तु स्वर-वर्ण-विभूषितः ।
रञ्जको जनचित्तानां सच राग उदग्रितः ॥

you asa' dhavanivishesastu svara-varna-vibhushitaha ranjako
jana-chittanam sara raga udagritaha

The translation is as follows:

That which is formed by pattern of sounds, that which is beautified with svaras and varnas (mode of singing) and that which is pleasing to the minds of people, that is defined as raga. Varna here means gana-kriya or the mode of singing. This is of four

kinds, namely, Sthayi, Arohi (ascent), Avarohi (descent) and Sanchari (combination of ascent and descent).

Later authors of treatises on music like Sarangadeva in his Sangita-Rathnakara (13th century) and Ahobola in his Sangita-Parijata (17th century) give more or less the very definition for raga. Illangovadigal, the author of the monumental Tamil work, the Silappadikaram, introduces the word pan as an equivalent term to raga or scale.

The origin of raga can be traced to the Saman chant which pivoted on two notes called the - tatta or the raised or the higher one and the anudatta or the not-raised or the lower one. Later, the note svarita is also mentioned. In the course of time, the Saman chant became developed to a heptatonic scale. In the early scales of the many countries in the world, the pentatonic is more widely used.

In the course of the development of the raga aspect in Indian Music, in order to uphold to the individuality of the various raga-forms, rules and regulations were formulated. These are called the raga-lakshanas. In spite of the rigidity of the set rules and laws attached to the raga-patterns, there is great scope for creativity in this field. To render an elaborate raga-alapana, a theoretical knowledge of the raga-lakshanas will not suffice. A practical approach to the understanding of the visual forms of many ragas disclose the fact that ragas have originated from various sources such as local tribal songs; folk-songs, poetical creations, devotional songs and compositions of scientific musicians.

The ragas propounded by the great composers are a legacy of Indian Music. There may be only a single composition in one raga; but the pristine purity of that form would be captured totally in that one composition. Such examples are innumerable in the bulk of Tyagaraja's compositions. An analytical study of these classical compositions helps the student of music to acquire lakshana jnana and lakshya-jnana. Lakshana-jnana is the knowledge acquired by scientific theory, and lakshya-jnana is the wisdom gained by practice and experience.

In a study of the raga aspect in music, a blend of theory and practice is essential. The scope of elaboration of raga can be studied

from the compositions of Muthuswami Dikshitar. The development of a raga from the mandra sthayi to the higher reaches, the stress on important sancharas, the finale with madhyamakala or a faster tempo are all depicted in meticulous procedure.

The foundation of raga-elaboration for students of Indian music can be laid in early lessons in the practice of alankaras or tala exercises. These exercises are generally taught in the raga Mayamala-vagowla during the early lessons and generally laid aside after sometime. After a few lessons in gitams and varnams, it would be of great help in the understanding of the raga-forms if practice in pentatonic scales, that is, scales with regular ascent and descent of five svaras, such as Mohanam, Hamsadvani, suchasaveri and suddhadhanyasi are taken up. Later, these alankaras can be practised in full scales such as Kalyani, Sankarabharanam, Kharaharapriya and Harikambhoji are taken up introducing simple gamakas or embellishments to bring the svarupa of the ragas. Later on alankaras in ragas like Kambhoji and Bhairavi can be practised. Such gradations in the practical lessons will make the students understand the importance of the distinct individual characteristics of the ragas and realise the scope of elaborating the raga-alapana.

Classification of ragas :

Before the advent of the Melakarta scheme, in the 17th century which brought out a scientific classification of the ragas, there prevailed various systems of classification of ragas.

An early system of classification of ragas is based on the general nature of the ragas, grouped under three divisions, viz., suddha, chaya-laga and sankirna.

Suddha means pure. Ragas adhering to tradition and conforming to certain rules were classified as suddha-ragas. Janaka ragas and janyas which have the same svaras as their janakas, belong to this category. It should be noted here that the janaka-janya system however evolved long after their classification.

Chaya-laga conveys the meaning of a shadow. Ragas which allow the shades of other ragas come under this group. Traditionally handed down ragas permit some common sancharas among them. A chaya-laga-raga was also called a salanka or salaga-raga.

Sankirna means mixture. Ragas having traces of two or three ragas, yet possessing individuality are called sankirna-ragas. A totality of the shades create a form of its own. Combining shades of different ragas need not affect the svarupa or form of the resulting raga. What is essential in maintaining the concept of raga should possess a clearly defined character of its own. As an example, the raga Ghanta has shades of Dhanyasi, Pun-nagavarali and Ahiri and yet has a specific character of its own.

A later classification of ragas is uttama-madhyama-adhama or superior, moderate and inferior. Ragas were classified according to their scope and the success obtained by them in practical usage. Uttama-ragas were those which were fit for elaboration and compositions. They were ranked superior to others. Madhyama-ragas were mainly used for elaboration but were rarely handled and so compositions were not attempted in them. Adhama-ragas were those which, though in vogue, were not considered fit for elaboration and so were regarded as inferior.

The Classification of raga-ragini-putra was prevalent in North India. There were supposed to be six principal ragas and each of them had a number of consorts called raginis. These ragas and raginis combined to yield putra-ragas. No definite rules were observed in this system as the ragas were classified arbitrarily. Some artists have taken to this idea and have created a few paintings calling them raga-mala pictures.

One system of classification of ragas is based on svaras in the murcchana. The murcchana of a raga is the series of svaras used in its arohana and avarohana listed in the order of the sapta-svaras. Murcchana can be taken to mean a musical scale. According to the system, a sampurna-murcchana consists of seven svaras, a shadava-murcchana six and an audava-murcchana five.

Another general classification of ragas is based on geographic origin of the ragas. Ragas native to the soil are Karnataka ragas while those originated from other regions and countries are desya or desi-ragas. The svaras of desya-ragas get altered according to the taste and style of the artist. For example Behag and Kamas of the Carnatic style are very different from the Hindustani style of rendering these ragas.

In Tamil Music, classification of ragas is based on the natural geographical regions of Tamil Nadu. They are: Mullai (region pertaining to pasture), Kurniji, (hilly regions), Marutam (region capable of being ploughed), Neital (coastal region) and Palai (waste lands). The characteristic music of each of these is named after the respective regions, such as, Mullaippan, Kuranjippan etc.

A general classification of ragas is under three heads viz. ghana, naya and desya. Ghana-raga-s were those which were taken mainly for the elaboration of tanam. i.e., the elaboration of raga interspersing with syllables tom, nam, tam, anatum, in a quicker tempo or madhyama-kala. Mere raga-alapana of these ghana-ragas in slow tempo is not very effective. Hence, they were handled mainly for tanaposition. The principal ghana-ragas from a set of five ragas viz. Nata, Gowla, Arabhi, Varali and Sri-raga. Earlier, Kedaram, Narayanagowla and a few others also followed these ragas. A naya-raga is the one whose individuality is brought out by prolonged alapana and tana. Most of the ragas can be grouped under naya-ragas also called raktiragas. Another classification gives the classes like grama, upa, suddha-etc. This classification is not very precise. However the different names under this category are given in chart No 1 at the end of the lesson.

The classification in accordance with the theory of time was also formulated. The relation between a particular raga and a certain fixed time at which the raga should be rendered was established. Ragas were classified into those which were to be rendered at dawn, morning, noon, afternoon, evening, dusk, night and midnight. This practice of reserving a specific time of the day for each raga is observed quite strictly even now by Hindustani musicians; but Carnatic musicians but not much cared for this idea of specific times for ragas. However, there are a few exceptions such as raga Bhupalam which is rendered in the early hours of the morning and also ragas Bilahari and Kedaram which are taken specially for practice during dawn.

According to one school of thought, each raga is associated with a specific rasa or emotion. This characteristic feature of a raga has been utilized in the choice of music for dance of various sorts and levels of theatrical programmes. Rasas nine in number called the nava-rasas, depict various moods :

Sringara	- Love
Vira	- Valour
Karuna	- Sympathy
Raudra	- Anger
Bhayanaka	- Fear
Bhibatsa	- Disgust
Hasya	- Humour
Adbhuta	- Wonder
Santa	- Peace

In Carnatic music, raga is regarded as an expression of the sublimation of all emotions and consequently, a specified rasa to a particular raga is not emphasized. Also Carnatic music is bhakti-oriented and hence raga, the basis of melody, is an expression of devotion.

It can be noted that in ancient Tamil music the devotional hymns or tunes were also called pans. Pan is a general name for a raga. The classification of the pans also were done according to the time of singing. They were classified into:

1. Pagal pan i.e. those which should be sung during day.
2. Iravuppan i.e. those which should be sung during night and
3. Poduppan i.e. those which could be sung at all times,

Most of the above classification are useful only from the historical point of view as they have fallen in to oblivion.

The modern classification of ragas is the janaka-janya-system. This is an off shoot of the scientific scheme of 72 melas or janaka-ragas.

The Scheme of 72 Melakartas

The scheme of 72 melas is a well defined system. Since it is based on scientific principles in a very meticulous manner, it proves good for all practical purposes. The term janakara, melaraga, melakartaraga, karta raga, sampurana raga, parent raga fundamental of principal raga, root raga are all synonymous.

The specifications for a janaka or a melakartaraga are :

1. The full series of the saptaśvaras should be present.
2. The sequence of the svaras in the arohana should be in the ascending order of pitch and similarly in the avarohana, the descending order of pitch.
3. Each svara should occur in the same variety i.e. either komal or tivra in both the arohana and the avarohana.
3. Each svara should occur in the same variety i.e. either komal or tivra in both the arohana and the avarohana.

Consolidating these details, it can be said that a mela is a sampurna raga with the same krama or order of svaras admitting the same variety of svaras both in the arohana and avarohana.

The classification of the ragas with these specifications is known as the Sampurna-paddhati, while the earlier systems come under the asampurna-paddhati, wherein it is sufficient if the saptaśvaras occur in the combined arohana-avarohana series.

Ragas like Nata and Varali are very ancient and existed long before the janaka-janya scheme was ever thought of. Nata-raga was given great prominence; it is considered auspicious and hence it is the opening raga in any function in temple even to-day. Musicians regard this raga as the foremost among ghana-ragas :

The rishabha of Nata-raga is neither suddha nor chatussruti. It takes the place of sadharana-gandhara and is pronounced as rishabha, it is technically called shadsruti-rishabha. Correspondingly, in the uttaranga group of svaras the shadsruti-dhaivata is the svara which takes the place of kaisiki-nishada. The gandhara of the raga Varali takes the place of chatussruti-rishabha and is called sadharana gandhara. The gandhara is so unique that it is called varali gandhara by some great masters.

The corresponding svara to this gandhara in the uttaranga group of svaras would be the one taking the position of chatussruti-dhaivata, it is termed suddhamishada.

Thus in a musical scale, the seven notes had expanded to twelve and later to sixteen (see chart No.1). To distinguish the varieties among the svaras, the vowel variations are adopted. But generally the numerical adaptations are taken.

The following gives the vowel and numerical adaptations for the svaras :

Suddha rishabha	ra	r ¹
Chatussruti-rishabha	ri	r ²
Shadsruti-rishabha	ru	r ³
Suddha-gandhara	ga	g ¹
Sadharana-gandhara	gi	g ²
Antara-gandhara	gu	g ³
Suddha-madhyama	ma	m ¹
Prati-madhyama	mi	m ²
Suddha-dhaivata	da	d ¹
Chatussruti-dhaivata	di	d ²
Shatsruti-dhaivata	du	d ³
Suddha-nishada	na	n ¹
Kaisiki-nishada	ni	n ²
Kakali-nishada	nu	n ³

The allocation of these svaras in their respective svara-sthanas is given in chart No. 2.

The mela-karta scheme is formulated distributing these sixteen svara positions in a musical scale, with the specification that mela-karta is a regular full scale consisting of all the seven notes, in order of their pitch, taking the same variety in both the ascent and descent,

With r¹, the possible ri-ga combinations will be

r¹ - g¹, r¹ - g² and r¹ - g³.

With r², the possible ri - ga combinations will be :

r² - g² and r² - g³. (As r² and g¹ hold the same positions, the combination r² - g¹ will not be possible).

With r^3 , the only possible combination will be :

$r^3 - g^3$. (As r^3 is higher in pitch to g^1 , $r^3 - g^1$ combination will not be possible, since this would not satisfy this specification that the sequence of svaras in mela should be in the ascending order of pitch; again as r^2 occupies the same position as g^2 , the combination $r^3 - g^2$ will not be possible).

Thus the total number of combinations possible with ri and ga is six. Similarly, the possible combinations with da and ni will be six (See chart No. 3).

With each one of the six sets of ri - ga combinations six sets with the combinations of da - ni can be fixed; introducing the suddha madhyama and the panchama, a full scale or a mela karta is formed. The total number of Suddha-madhyama-melas will be 6×6 or 36. Substituting prati madhyama for suddha madhyama a corresponding set of 36 prati madhyama-melas are obtained. Thus the scheme of 72 melas is formulated.

These 72 melas are structured in twelve chakras or groups of six each. In each chakra, the svaras of the purvanga viz. ri - ga and ma remain constant; the change occurs only in the svaras of the uttaranga viz. da and ni.

In the first chakra the svaras taken by the first mela are :

Shadja, suddha-rishadha, suddha-gandhara, suddha-madhyama, panchama, suddha-dhaivata, and suddha-nishada. Since all the vikritasvaras happen to be suddha-svaras, this mela is called suddha-mela. In the nomenclature of the mela scheme, this scale is called kanakangi.

The names and svaras taken by the melas are given in the latter part of chart No. 3. The suddha-madhyama-melas (one to thirty six) are called purva-melas and the second set of 36, (37 to 72) prati madhyama-melas are called uttara-melas. See chart No. 4.

Names are given to the twelve chakra-s suggestive of their serial number, for e.g. Chakra I named Indu (moon) signifies the single moon on the earth or a drop of Soma juice, and Chakra II named Netra (eye)-all living beings are two eyed. For further details see chart No. 5.

The nomenclature of these 72 melas is so ingenious that from the very name of the mela, its serial number and the svaras taken by it can be deduced. This is done by the application of the ancient formula, the katapayadi-sankhya. This scheme is made use of in many sciences and arts in our country. The katapayadi-formula is based on the principles letters of the Sanskrit alphabets classified under four groups :-

- Kadinava — a series of nine letters starting from the alphabet ka.
- ṭadinava — A series of nine letters starting from the alphabet ṭa.
- Padi-pancha — A series of five letters starting from the alphabet pa.
- yadi-ashta — a series of eight letters starting from the alphabet ya.

In chart No. 6, on the horizontal tabulation are given the groupings of the letters.

- kadinava — k, kh, g, gh, ng, c, ch, j, jh, jn;
- tadinava — t, th, d, dh, n, t, th, d, dh, n;
- yadiyashta — y, r, l, v, s, sh, s, h, and
- Padipancha — p, ph, b, bh, m.

In each group, the letters are so compartmentalised that each letter is labelled by the series of numbers 1, 2, 3, 4, 5, 6, 7, 8, 9, and 0. In tadinava, the extra letter n falls under 0.

The method to decipher the serial number and the svaras of a mela, say Mayamalavagowla is as, followed.

Fix the first two syllables of name of the mela, i.e. ma and ya in their respective compartments. Ascertain the numbers under which they fall, they are 5 and 1. The resulting number is 51. The number formed by reversing the digits 5 and 1 namely 15 gives the serial number of the mela. This serial number determines the svaras taken by the mela. The chakra to which the mela belongs ascertains the purvanga-svaras and the rank of the mela gives the uttaranga svaras.

of the ragas from its introductory phrases, stressing the importance of stabilizing the ragas-svarupas has been the mission of our great composers and masters through their compositions and expositions.

The earlier nomenclature for the 72 melas starting with Kana-kambari, Penadhuti etc upto Ragamanjari, was supposed to have been laid down by one Muddhu Venkatamakhi on the basis of the kadapayadi-sankya-system of computation. The modern nomenclature starting with Kanakangi. Ratnangi upto Rasikapriya, has been credited to Govinda.

The modern mela-scheme of the 72 complete scales is known as the sampurna - mela - paddhati as against the sampurna - mela-paddhati wherein a raga in which all the sapta-svaras occurred, immaterial of some of the svaras being absent either in the arohana or avarohana can be claimed as a mela. For example, Sriraga : s r m p n ś-ś n p d n p m r g r s -. Here though ga and da are absent in the ascent, all the seven svaras appear, though not in order.

Bhuta Sankhya :

Bhuta sankhya is used in ganita-sastra or the science of computation, mathematics, and in chronograms. In musical mnemonics, bhuta sankhya is used to denote the names of :

1. 12 chakras in the scheme of 72 melakartas, (see chart 5),
2. 12 svarasthanas in the work, svararnavam,
3. some of the 35 talas, and
4. the varieties of flute.

Sankhya in this context means that which relates to numbers as against the name of one of the six systems of Hindu philosophy. Bhuta sankhya is a mnemonic method of denoting numbers through words or names suggestive of those numbers.

Vivadi and non-vivadi melas :

Vivadi-svaras are those which have a discordant relationship with the vital svaras in a musical phrase. Some of the pairs of

svaras occupying adjacent svarasthanas have this vivaditva or the quality of vivadi-relationship. These are :

1. suddha rishabha, suddha gandhara
2. shaṭsruti rishabha, antara gandhara
3. suddha-dhaivata, suddha nishada
4. shaṭsruti rishabha, kakali nishada.

Melakartas having the grouping of these svaras are vivadi-melas. Great care has to be taken in rendering these ragas. A peculiar approach is made in the handling of some sancharas, such as, skipping of some intermediate svaras, etc.

In the magnum opus creation of Maha Vaidhyanatha Sivan, namely, his melaraga-malika, in short svara phrases, the ragasvarupa of the vivadimelas are clearly brought out because of the very careful approach given to the sancharas.

Non-vivadi melas are those which take the svaras admitting the two varieties namely the komal and theevra svaras. They are :

1. suddharishaba, sadharana gandhara
2. " , antara gandhara
3. chatussruti rishabha, sadharana gandhara
4. " , antara gandhara
5. suddha dhaivata, kaisiki nishada
6. " " , kakali nishada
7. chatussruti dhaivata, kaisiki nishada
8. " " , kakali nishada.

In handling these melas, one can be more at ease in getting the correct svarasthanas, especially in the voice.

RAGAS							
suddha chhayalaga sankirana	uttama madhyama adhama	raga ragini putra	karnataka desi	grama-raga upa raga suddha bhasa vibhasa antara bhasa raganga bhashanga upanga kriyanga	time-theory dawn morning noon afternoon evening dusk night midnight all times	rasa-theory sringara veera karuna rowdra hasya bhayanaka bheebatsa adbhuta santi	genus-species janaka janya upanga bhashanga varja vakra nishadantya dhaivadantya panchamadantya
sampurna-murchhana shadava-murchhana audava-murchhana							

Chart - 2

1		2		3		4		5	6		7	
svaras	sadja	rishabha		gandhara		madhyama		pancama	dhaivata		nishada	
svarasthanas	1	2	3	4	5	6	7	8	9	10	11	12
		suddha	chatussruti	sadharana	antara	suddha	prati		suddha	chatussruti	kaisiki	kakali
			suddha-gandhara	shat-sruti-rishabha						suddha-nishada	shat-sruti-dhaivata	
	sa	ri ₁	ri ₂ ga ₁	ri ₃ ga ₂	ga ₃	ma ₁	ma ₂	pa	da ₁	da ₂ ni ₁	da ₃ ni ₂	ni ₃
	1	2	3, 4	5, 6	7	8	9	10	11	12, 13	14, 15	16

R1 - G1 | R1 - G2 | R1 - G3 | R2 - G2 | R2 - G3 | R3 - G3 | D1 - N1 | D1 - N2 | D1 - N3 | D2 - N2 | D2 - N3 | D3 - N3 |

Mela	sa	ri	ga	ma	pa	da	ni
1	suddha	suddha	suddha	suddha	suddha	suddha	suddha
2	"	"	"	"	"	"	kaisiki
3	"	"	"	"	"	"	kakali
4	"	"	"	"	"	chatussruti	kaisiki
5	"	"	"	"	"	"	kakali
6	"	"	"	"	"	chadsruti	kakali
7-12	"	"	"	"	"	"	"
13-18	"	"	"	"	"	"	"
19-24	"	"	"	"	"	"	"
25-30	"	"	"	"	"	"	"
31-36	"	"	"	"	"	"	"

37-72 place prati-madhyama in the svarasthana of suddhamadhyama in 1 - 36

PURVA MELAS			UTTARA MELAS		
Cha-kra	No.	Name	Cha-kra	No.	Name
I	1	Kanakangi	VII	37	Salagam
	2	Ratnangi		38	Jalarnavam
	3	Ganamurti		39	Jalayarali
	4	Vanaspathi		40	Navanitam
	5	Manavathi		41	Pavani
	6	Tanarupi		42	Raghupriya
II	7	Senapathi	VIII	43	Gavambhodhi
	8	Hanumatodi		44	Bhavapariya
	9	Dhenuka		45	Subhapantuvarali
	10	Natakapiya		46	Shadvidhamargini
	11	Kokilapriya		47	Suvarnangi
	12	Rupavati		48	Diyyamani
III	13	Gayakapiya	IX	49	Dhayakambari
	14	Vakulabharanam		50	Namanarayani
	15	Mayamalavagaula		51	Kamavardhani
	16	Chakravakam		52	Ramapriya
	17	Suryakantam		53	Gomanasrama
	18	Hatakambari		54	Visvambhari
IV	19	Jhankaradhvani	X	55	Syamalingi
	20	Natnashairavi		56	Shanmukhapriya
	21	Kiravani		57	Simhendramadhyam
	22	Kharaharapriya		58	Hemavati
	23	Gaurimanohar		59	Dharmavati
	24	Varunapriya		60	Nitimati
V	25	Mararanjani	XI	61	Kantamani
	26	Charukesi		62	Rishabhapriya
	27	Sarasangi		63	Latangi
	28	Harikambhoji		64	Vachaspati
	29	Dhirasankara-bharanam		65	Mechakalyani
	30	Naganandhini		66	Chitrambari
VI	31	Yagapriya	XII	67	Sucharitra
	32	Ragavardhani		68	Jyotisvarubani
	33	Gangeyabhushani		69	Dhatuvardhani
	34	Vagadniswari		70	Nasikabhushani
	35	Sulini		71	Kosalam
	36	Chalanata		75	Rasikapriya

Purva melas are also called Sudana madhyama melas as they take Suddha-madhyamasvara. Corresponding melas taking prati-madhyama svaras are called Uttara Melas. The varieties of Rishabha-Gandhara svaras are given in the previous chart.

MELAKARTA Serial Number	CHAKRA NO NAME	Explanation of Names suggesting significance of Serial Numbers
1—6	I INDU	A drop of Soma-juice according to the Vedas.
7—12	II NETRA	Two eyes for all moving creations in Nature.
13—18	III AGNI	AGNITRAYA (Three sacrificial fires) : ĀHAVANĒEYA, DAKSHINA and GĀRHAPATYA
19—24	IV VEDA	CHATURVEDA (Four Vedas) RIG, YAJUR, SĀMA, ATHARVA
25—30	V BĀNA	Panchabāna of Manmatha (Five Arrows) : Sammōhana, Unmadhāna, Sōshana, Tapana, Sthābhana
31—36	VI RUTU	SHADRUTU (Six Seasons) Sisira, Vasanta, Greeshma Varsha, Sarad and Hima.
37—42	VII RISHI	SAPTA RISHI (Seven Sages) : Gautama Bharatvaja Viswamitra Jamadagni Vasishta Kasyapa and Atri

MELAKARTA Serial Number	CHAKRA NO NAME	Explanation of Names suggesting significance of Serial Numbers
43—48	VIII VASU	ASHTAVASU (eight substances) : Dhara, Dhuruva, Soma, Aha, Anila, Anala, Pratyusha and Prabhasa.
49—54	IX BRAHMA	Prajapati : An epithet of Brahma according to Manusmrithi an epithet of nine lords of created Beings, created by Brahma
55—60	X DISI	DISI (Directions Ten) - North, South, East, West, North-East, South-East, North-West, South-West, Up and DOWN.
61—66	XI RUDRA	EKADASI RUDRA : A group of eleven Gods supposed to be the manifest- ations of Siva as the head.
67—72	XII ADITYA	Dvadasa-Aditya (twelve suns) Representing twelve months : Dhata, Mitra, Aryama, Rudra, varuna, Surya, Bhaga, Vivaswan, Pusha, Savita, Twasita & Vishnu.

	1	2	3	4	5	6	7	8	9	0
Kadi-nava 9 letters from ka	k	kh	g	gh	ng	ch	chh	j	jh	ja
Tadi-nava 9 letters from ta	t	th	d	dh	n	c	th	d	dh	n
Padi-pancha 5 letters from pa	p	ph	b	bh	m					
Yadi-ashtha 8 letters from ya	y	r	l	v	sh	ah	s	h		

LESSON 4

Classification of ragas :

Janaka—janya; Further classification of janyas

The janaka-janya system of classification is a scientific and a practical one. Janaka means father, and janya means that which is born. A janaka-raga is a fundamental of a primary or root-raga. It is also called a karta-raga or just a karta or a mela or a mela-karta. Raga-s derived from these melas are known as janya-raga-s or derivative or secondary raga-s.

The number of janaka raga-s is fixed, as 72, as it is worked on the possible combination out of the twelve swarasthanas of the sthayee; but the possibility of the number of janya raga-s is enormous. It is practically unlimited. The classification of janaka-janya system does not give room for the presumption that janya-raga-s are formed later i.e., they are later in origin and more modern than the janaka-s. Some janya-raga-s were in existence centuries before the genus species system, i.e., the parent and the offspring or janaka and janya was ever thought of. As a matter of fact, many janaka-raga-s have been given shape and rendered freely in the last two centuries. Of course, many janya-s have also sprouted more by intellectual speculation than by emotional spontaneity,

A janaka-raga comprises all the sapta-svara-s; hence it is called sampurna-raga, sampurna meaning full or complete.

The specifications for a janaka or a mela-karta-raga are;

1. The full series of the sapta-svara-s should be present.
2. The sequence of the svara-s in the arohana should be in the ascending order of pitch and similarly in the avarohana, the descending order of pitch,
3. Each svara should occur in the same variety i.e., either komal or tivara in both the arohana and the avarohana.

Consolidating these details, it can be said that mela is a sampunaraga with the same krama or order of svara-s admitting the same variety of svara-s both in the arohana and avarohana.

The classification of the raga-s with these specifications is known as the Sampurna—paddhati, while the earlier systems come under the asampurna-paddhati, wherein it is sufficient if the sapta—svara-s occur in the combined arohana—avarohana series.

Janya ragas are ragas derived from the janaka ragas. Janya may have all the sapta—svara-s but may not satisfy the other specifications of a janaka. For example, the raga Sahana, a derivative of Harikambhoji has a sanchara as-ri ga ma pa da ni śa ri. Generally a Janya has either five or six or seven svara-s either in the arohana or avarohana or both; in cases where there are only four svara-s in the arohana, they make up with more svara-s in the avarohana and vice-versa. However, in some very modern (coined) janya-s, this aspect has been over-looked.

Raga-s like Nata and varali are very ancient and existed long before the janaka—janya scheme was ever thought of. Nata—raga was given great prominence; it is considered auspicious and hence it is the opening raga in any function in temple even to-day. Musicians regard this raga as the foremost among ghana—raga-s. Both the ragas Nata and Varali are celebrated ragas for rendering of the traditional tana. Tana is an extended elaboration of the raga—alapana using syllables *tam, nam tam* and *anantham*, spread among groups of two, three four five or six. It can be noted here that both the ragas Nata and Varali are *vivadi*-ragas — Nata takes *shatsruti rishabha* and Varali, *suddha—gandhara*. Varali is a difficult raga, mainly because of its *gandhara* being *suddha gandhara* and sometimes slightly higher because of *gamakas*. Hence, it was supposed that this raga was not to be taught by a teacher to a student. Perhaps the reason behind this is, ragas like Varali can be understood and rendered only with the good deal of listening to authentic versions of ragas and compositions and absorbing the nuances of the shades of *gamakas*, characteristic of the various ragas.

A janya is said to be born of a janaka or parent, father. The name and serial number of its janaka give a clue to the svaras taken by a janya are among those of its parent ragas; but this statement is not a compulsory one.

A janya whose svaras are among those of its parent raga is called a *upanga-raga* i.e., the svaras of the *upanga* form a sub-set of those of its parent or *janaka*. Some janyas admit one or two svaras alien to their janakas. These are called *bhashanga-ragas*, and the foreign notes are named *bhashanga-svaras* or *anya-svaras*. *Anya* means different. *Bhashantara* means another dialect. It is conceivable that ragas with *anya-svaras* are called *bhashantara-ragas* as in colloquial usage *bhashantara* becomes *bhashanga*. Thus janyas are divided into *upanga* and *bhashanga-ragas* (see chart No.1). In notation, the *bhashangasvaras* denoted by an asterisk sign above them.

An important class of janyas is *varja ragas*, *varja* means leaving or abandoning. A janya is a *varja raga* when the or two of one sapta svaras are omitted either from the arohana or avarohana or both. As a general rule, a janya should have at least five svaras in arohana and avarohana as well. Janyas which have only four svaras are called *svarantara ragas*.

If a janya has all the seven svaras in the arohana, it may have either six or five in the avarohana and vice versa. Another possibility is that the arohana has six with an avarohana of five and vice versa. Yet another possibility is that both arohana and avarohana have either five or six each. The number of possible variations thus obtained is eight. Using technical terms *sampurna* for the series of seven svaras, *shadava* for six and *audava* for five, the groupings will be:

Sampurna—shaddava, shadava-sampurna, sampurna-audava-audava-sampurna, shadava-audava, audava-shadava, shadava-shadava and audava-sudava. See chart No: 2.

Thus each mela can give rise to eight *varja-ragas*.

The context here demands our attention to the practical side. One may feel that the methodical sorting and grouping of ragas will tend to be mechanical and dry while rendering them. It is here that the artistic creativity of great composers becomes apparent. The skill with which the scholarly composers have given form and expanse to the derivative ragas reveals the vastness and variety of the svarupa of the *varja* ragas. To quote an example, the raga *Nathabhairavi* or mela 20 was in oblivion during the pre-Tyāgarāja period. Even the only composition of Tyāgarāja in this raga commencing with the

words 'Chetulara srīngaramu' is a subject of controversy-whether it is rendered in Bhairavi, Kharaharapriya or Nata bhairavi. Anyhow, the compositions composed in the janya of compositions composed in the janyas of Nathabhairavi speak of the genius of Tyāgarāja, for the varja-ragas have attained charming individual forms of their own in his hands. A few examples:

Composition	Rāga
Mokshamugalaḍā	Sāramati janya of 20th mēla; sampurna- audava; ri and pa varja in avarō- hana : (s r g m p d n ś - ś n d m g s).
Rara Sitaramaṇimānōhra	Hindola - vasantam janya of 20th mēla : shadava audava; ri and ni varja in arohana; pa and ga varja in avarohana (s g m p d s - s n d m g s).
Nadaloluḍai	Kalyāṇa - vasantam janya of 21st mēla: audava-sam- purna; ri and pa varja in arohana; (s r g m p n ś - ś m d p m g s).
Orajupuju	Kannadagowḷa janya of 22nd mēla; shadava-shadava; da varja in arohana and ri in avarohana; (s r g m p n ś - ś n d p m g s).
Ninnuvina	Navsrasakannada janya of 28th mēla; (s g m p ś - ś n d m g r s)

It is obvious that there will be a number of repetitions when the process of derivation by method of groupings sampurna-shadava, shadava sampurna etc., is applied to each of the 72 mēlas. For e.g., a varja-raga wherein the madhyama does not appear, can be derived either from a purva-mēla or uttara-mēla as Sankarabharanam and Kalyani. If a common svāra in these, say nishada is deleted, the

resulting svāra-series gives the scale of raga Mohana. Consequently determining the janaka of Mohana and similar janyas poses a problem. In this context the janaka of Mohana turns out to be neither Sankarabharanam or Kalyani. As the dhaivata of Mohana is more flat than that of Sankarabharanam and the particular oscillations given to that svāra brings closer semblance to the mēla Harikambhoji, Mohana is fixed as a derivative of Harikambhoji. Also in such cases, the mēla with an earlier serial number is taken up for decision: i.e. Harikambhoji, being 28, and Sankarabharanam 29, 28 is given preference to 29; but generally lakshana and svarupa of ragas are given prior consideration. Sampradaya or tradition is taken into consideration and also the sruti-values of the dominant svaras of the janyas.

The examples cited for varja ragas as tabulated in chart No. 2 are all upanga ragas. In bhashanga ragas one of the two varieties of one particular svāra should be a bhashanga. For e.g., Bhairavi and Mukhari have chatussruti-dhaivata in the arohana, Both classified under Nathabhairavi, 20th mēla, and not under Kharahara priya, the 22nd.

The ārohana of Mukhāri is : s r m p n d ś

r m p d ś is also permissible.

The course taken by the svaras in the arohana is not regular. It deviates after panchama as p n d ś. Such a phrase is called a vakraprayoga - A vakra raga is one in which the order of pitch of the svaras either in ascent or descent does not coincide with that of the sapta svāra of the scale. See chart No:3 Examples :

The arohana and avarohana of Begada are :

s g₂ r₂ g₂ m₂ p d₂ p ś - ś N₁ d₂ p M₁ g₂ r₂ s

As the arohana is vakra and avarohana sampurna, this is a vakra sampurna: also it is arohana vakra as it is vakra in this arohana.

Raga Karnataka - Bahag :

s r₂ g₂ m₁ p d₂ n₁ s - s n₁ d₂ n₁ p m₁ g₂ r₂ g₂ s.

This is an example of sampurna vakra, also avarohana vakra.

Raga Srīranjani :

s r₂ g₁ m₁ d₂ n₂ s - s n₁ d₂ m₁ g₁ r₂ s

As this is varja in both arohana and avarohana, also shadava in both, it is an example of shadava-ubhaya-varja.

Raga Hamasadhani :

$s\ r_2\ g_2\ p\ n_2\ s - s\ n_2\ p\ g_2\ r_2\ s.$

An example of audava-ubhaya varja.

If a raga is bhashanga and also vakra, it is called bhashanga-vakra (e.g.,) Raga-Saranga, janya of Mechakalyani

$s\ r_2\ s\ p\ m_2\ p\ d_2\ n_2\ s - n_2\ d_2\ p\ m_2\ r_2\ g_2\ m_1\ r_2\ s.$

(In above examples: the anya-svara is denoted with an asterisk above it. The numbers accompanying the svaras in the above examples denote the komal and tivra by 1 and 2 respectively.)

The range of svaras in some ragas is limited where the arohana does not reach the tara-shadja, and also the range in the lower octave is also limited. These ragas are named according to the highest svara reached by them:

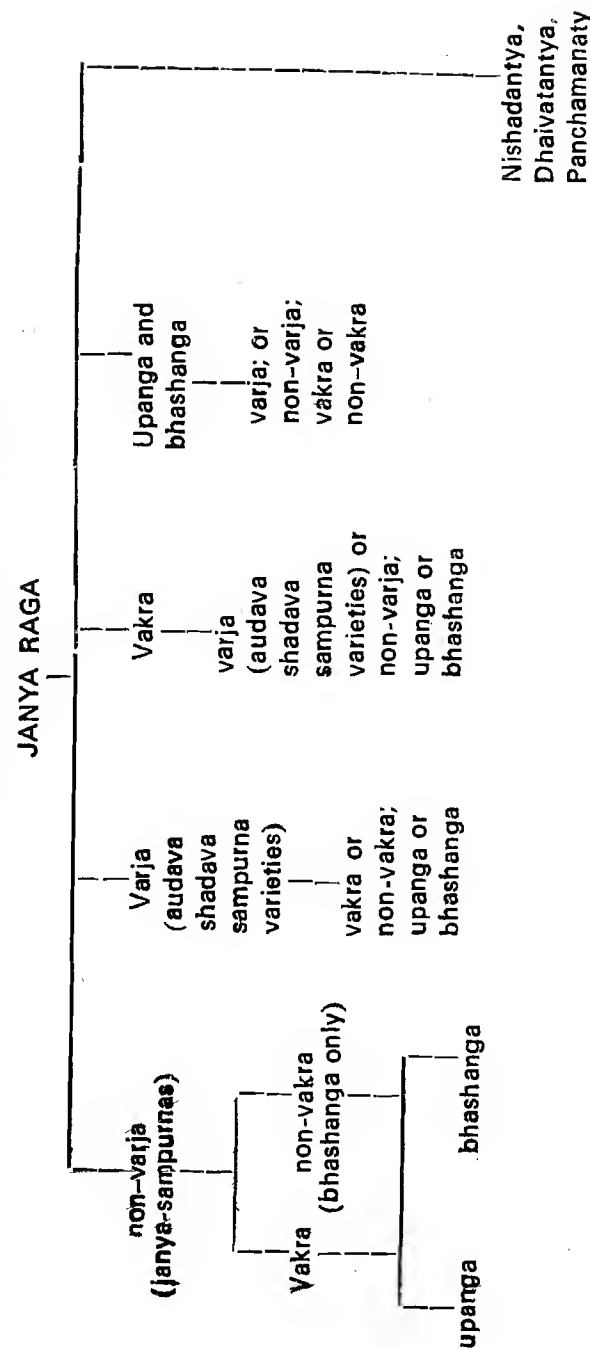
Those having dhaivata as the highest reach are called dhaivatantya (e.g.) Kuranji.

Those having panchama as the highest reach are called panchamantya (e.g.) Navarōj.

Though the range of these ragas is limited, there are a good number of compositions in these ragas replete with musical qualities. Many musical forms in these ragas are found in folk music. Since there is no sanchara in the tara-sthayi, these ragas and compositions in them are rendered in madhyama-sruti, (i.e.,) the adhara-sruti is shifted to suddha-madhyama.

Since Indian music is purely a melodic system wherein there is progress by successions of single notes, as against the harmonic system wherein there is progress by groups of notes known as chords, the system of ragas their evolution and classification have become meticulous, artistic and scientific.

General Classification of Janya-Raga



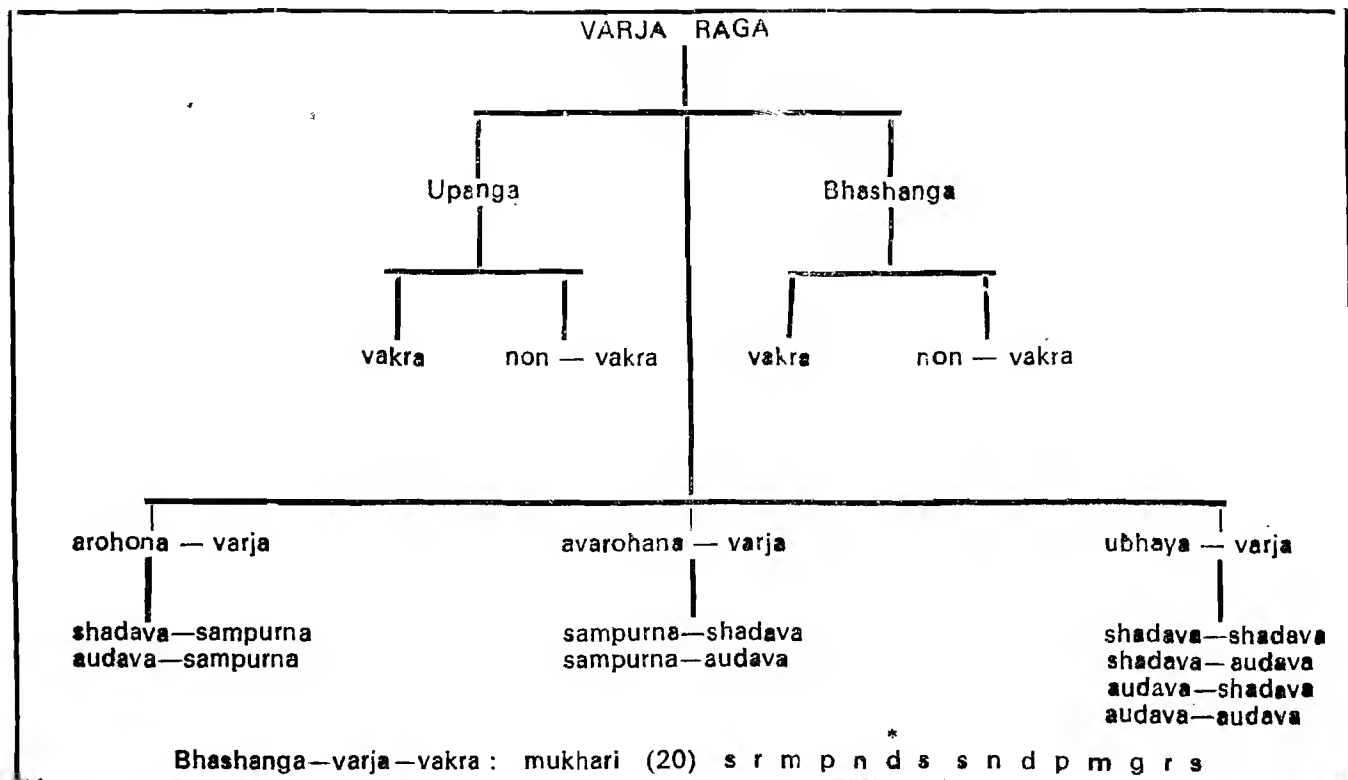
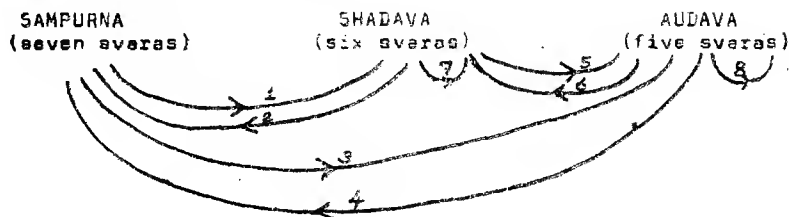


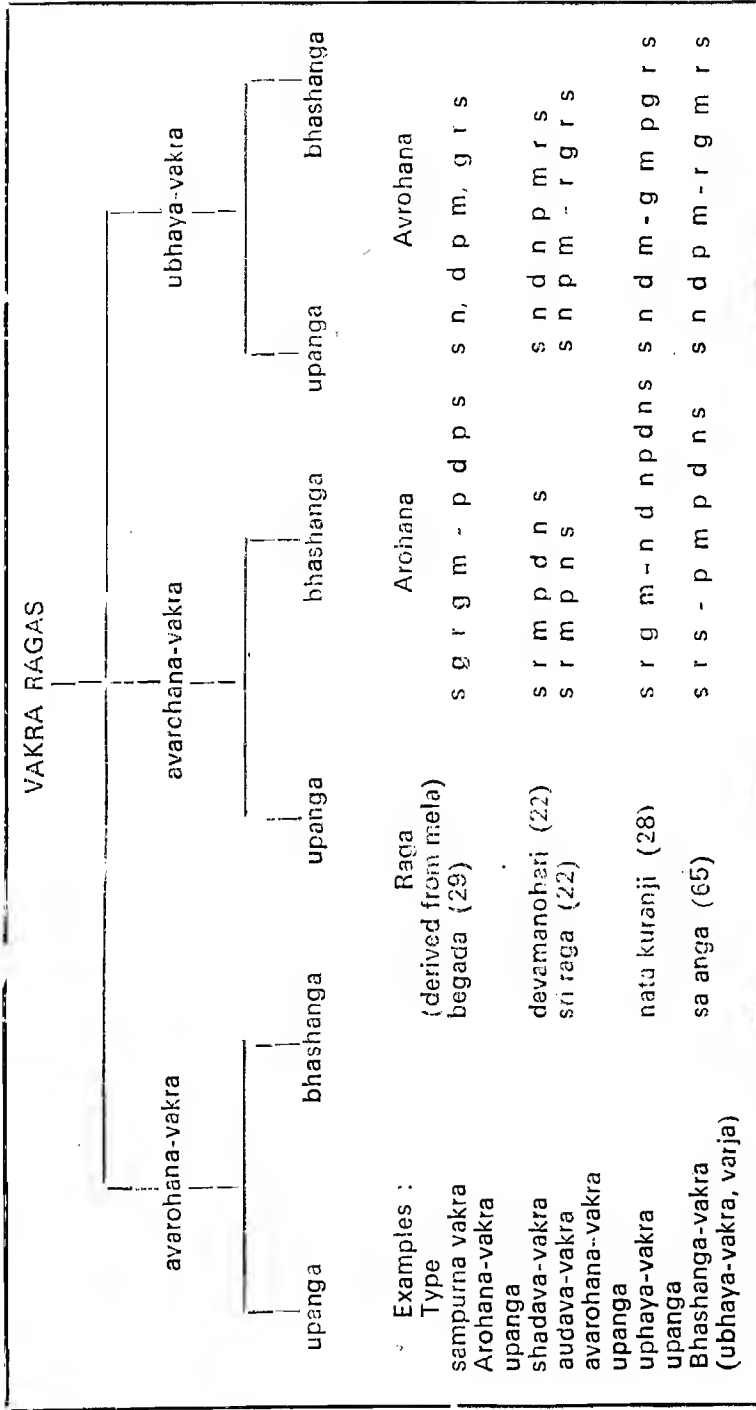
Chart No: 2

VARJA RAGA CLASSIFICATION

GROUPING ———

**Examples:**

No. Type of Grouping	Raga (derived from male)	Arohana	Avarohana
1. shadava - sampurna	Kambodi (28)	e r g m p d s ———	s n d p m g r e
2. sampurna - shadava	Bhairavam (17)	e r g m p d n e ———	s d p m g r e
3. Audava - sampurna	Saveri (15)	e r m p d s ———	s n i d p m g r e
4. sampurna - audava	Garudadvani (29)	e r g m p d a s ———	s d p g r e
5. audava - shadava	Malaheri (15)	e r m p d s ———	s d p m g r e
6. shadava - audava	Bhavadani (28)	e g m p d n e ———	s n p m g e
7. shadava - shadava	Sri Ranjani (22)	e r g m d n e ———	s n d m g r e
8. audava - audava	Hamsadvani (29)	e r g p n e ———	s n p g r e



LESSON 5

Raga - Lakshanas

(1) Mayamalavagowla

The original name for this raga was Malavagowla. Later, the prefix maya was added to suit the katapayadi-sankhya or the scheme formulated to decipher the character and classifications of musical scales.

Ramamatya, in his svvara-mela-kalanidhi in the chapter on raga refers to Mayamalava-gowla as "raganam uttamottamah"- the foremost among the best ragas.

Mayamalava-gowla is a sampurna raga. In the melakarta scheme it falls as the third raga in the third chakra, Agni.

Arohana : s r g m p d n s ; Avarohana : s n d p m g r s .

Besides shadja and Panchama the notes taken are :
suddha rishabha, antara gandhara, suddha madhyama, suddha dhaivata and kakali nishada.

Certain characteristics may be observed in the formation of this scale mayamalavagowla :

1. Four pairs of svaras viz., s-r₁, g₂-m₁, p-d₁ and n₂-s occupy adjacent svarasthanas.
2. The achala-svaras, shadja and panchama, feature in three of the four pair of adjacent svaras. This makes the production of vikrita-svaras easy. As the continuous background of the drone gives the svaras sa pa sa simultaneously, the beginner in vocal music gets the support of these prakriti-svaras as a sure landing place to reach the vikriti-svaras with greater precision. Besides, in the case of instrumental music, fingering is easy because of the adjacent position of these svarasthanas.
3. In the fourth pair consisting of g₂-m₁, the special role of m₁, discussed earlier comes with effects, as, here it has a

steady quality. As for g_2 , even if the slight pull is not given, the form of the raga is not affected.

4. In the nomenclature for svaras, for the purpose of classification of major ragas, the following svaras have dual names :

- r_2 — chatussruti-rishabha, suddha-gandhara
 g_1 — sadharana-gandhara, shadsruti-rishabha,
 d_2 — chatussruti-dhaivata, suddha-nishada.
 n_1 — kaisiki nishada shadsruti-daivata.

The svaras which maintain their names are :

- r_1 — suddha-rishabha
 g_2 — antara-gandhara
 m_1 — suddha-madhyama
 d_1 — suddha-dhaivata, and
 n_2 — kakali-nishada;

These occur in the raga Mayamalavagowla.

These characteristics support the selection of the scale Mayamalavagowla in preference to the others as the ideal one for beginners in music. It was Purandara-dasa of the 17th. century who saw the aptness of this raga as an initial raga for beginners and formulated fundamental exercises in this scale for students. His pillari gitams are in raga Malahari which takes the svaras of Mayamalavagowla. Since then, the raga Mayamalavagowla withstood challenges and has become an essential base in traditional methods.

The jeeva svaras of this raga are ga and ni . This raga can be taken for and elaborate raga-alapana. Many traditional tunes are found in the janyaragas of Mayamalavagowla. Nadanamakriya is a nishadantya janya of this raga. The prominence given to the madhyamasvara in nadanamakriya brings in entirely a new swarupa which is very remote from the chhayas of Mayamalavagowla. It can be noted here that the simple prayer tune used by the Islam religion has great semblance to this raga. The Bhairava raga of Hindustani music corresponds to Mayamalavagowla.

Sancharas :

$s r g m p d p$ — $d p m g m p d n \delta$ —
 $N N \delta \ddot{r} \delta$ — $\delta \ddot{r} N$ — $\delta \ddot{r} g m g \ddot{r}$ — $\delta n \delta \ddot{r} \delta$ —
 $\delta n d p m$ — $g m p d n \delta$ —
 $\ddot{r} N d p m$ — $g m p d n \delta n d p m$ — $g m g r s$ —

Compositions :

kriti — Talasidalamu — Rupakam — Tyagaraja
 „ — Merusamana — Adi — „
 „ — Devi Sattasamma — Adi — „
 „ — Vidulakumrokedha — „ — „
 „ — Mayatitasvarupini — Rupaka — Ponnayya
 „ — Devadideva — Rupaka — Mysore
 Sadasiva Rao,
 „ — Devadeva kalayami — Swati Tirunal.
 lakshana-gita — Ravikotiteja — Matyatala.

Sankaraharana

Sankarabharana is a sampurna raga, 29th. melakarta. To suit Katapayadi sankhya, the word 'Dhira' is prefixed to its name. In the melakarta scheme it falls as the fifth raga of the fifth chakra Bana.

Arohana : $s r g m p d n \delta$ - avarohana : $\delta n d p m g r s$

Besides sadja and panchama, the svaras taken are:

chatussruti rishabha, antara gandhara, suddha madhyama,
 chatussruti dhaivata and kakali nishada.

The svaras in the purvanga and the uttaranga occupy the exact positions in the octave. Also, the gamaka nokku or a stress in the svaras ri and da in the arohana is very similar. In fact, it is these pronounced gamakas that bring the real svarupa of the raga. This brings out the vast difference which lies between a scale and a raga. This raga corresponds to the major ditonic scale of the Western music and Bilaval of Hindustani music. It can be noted here that the early lessons in svara-exercises are given in this raga in Hindustani system of music and also Western. In Tamil music this raga is called pan pazham panjuram.

Mention of the raga Sankarabharana is made in Sangita Ratnakara, Sangita-makaranda, Raga-vibodha and Sangita-samaya-sara. Somantha in his Raga-Vibodha, while explaining the deity-based roopas of ragas describes Sankarabhana as a beautiful deity of white colour, adorned with a garland of lotuses, with vibhooti or ashes smeared on the forehead, wearing a bloodred garland. This seems very apt as literally the word Sankarabharana means an ornament of Siva, the Lord of natya or dance clad in deer skin, adorned with serpents as garlands. with his forehead and body smeared with ashes.

Sankarabharana is a very ancient raga, particular phrases are very prominent such as \dot{s} D p and g m dpp R s, \dot{s} d N S. A prolongable antara gandhara is very characteristic of Sankarabharana, where as a slight andolita gamaka given to this straight antara gandhara brings in the svarupa of Kalyani, the corresponding prati-madhyama-mela. Janta-svara and dhat-svara prayogas are liberally used in this raga.

Such as pp mm gg mm, rr gg mm pp and \dot{r} n- \dot{s} d-n d-d m p q m r-g s.

Slokas, padyams and viruttams are sung in this raga.

All types of musical forms are found in this raga and its many janyas.

Sancharas :

S P m g m r - g m p d n \dot{s} - S \dot{s} n \dot{s} R \dot{s} -
 \dot{s} n \dot{s} \dot{r} G - \dot{r} g m g \dot{r} s - n \dot{s} R \dot{s} D P
 m g m p d n \dot{s} - \dot{r} n - \dot{s} d - n p - m g M
 g m d pp R S - s d N - s R S -

Compositions :

Qltam

Vijitamadanavilasa - druvatala
 Are Dasaratha - simhananda

Varanam :

Sami ninne - Adi - Vina Kuppier
 Chalamela - Ata - Swati Tirunal

Pada-varnam :

Ati Moha, Maname bhashanam.

Pada :

Challa nayenu	-	Tripura	-	Kshetragna
Evvada bhama	-	Misram	-	"
Dari juchu	-	chapu	-	Mavallur Sabhapaty Iyer
Nalla nalla nilavu	-	Adi	-	Ghanam Krishna Iyer

Tarangam :

Sri Vasudeva	-	Chapu	-	Narayana Tirtha
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Ashtapadi :

Pasyati pasyati	-	Tripura	-	Jayadeva
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Kriti :

Evaragu juchinadi	-	Adi	-	Tyagaraja
Etutanilichite	-	"	-	"
Endukuapeddala	-	"	-	"
Buddhiradu	-	Chapu	-	"
Bhaktibhiksha	-	Rupaka	-	%
Manasusvadeenamai	-	"	-	"
Mariyadagadura	-	Adi	-	"
Svararagasudharasa	-	"	-	"
Nagalingam	-	"	-	Muthuswami Dikshitar
Akshayalinga vibho	-	Chapu	-	"
Sarajadalanetri	-	Adi	-	Syama Sastry
Devi Meenanetri	-	"	-	"
Mahimateliyatarama	-	Rupaka	-	Annayya
Sri Haripala	-	Ata	-	Tallappakkam Chinnayya
Nrityati nrityati	-	Adi	-	Svati Tirunal

Divyanama :

Kritis of Tyagaraja:

Ramaaramana raaraa	-	Adi
Raama ninnuvina	-	Rupaka
Paripalaya dasarathe	-	Chapu
Sri Raghuvara	-	Rupaka
Gatamohaarchida	-	"
Pahi Ramachandra	-	Adi
Rama Seetarama	-	"
Varaleela	-	tisra laghu
Seetapati	-	Adi
Evidhamu	-	"

Out of the six murchhana-karaka-melas (i.e., mela capable of yielding a murchhana or another mela by graha-bheda or modal shift of tonic) Sankarabharana is one. Since there are only six possible shifts of the tonic the maximum murchhanas from a mela can only be five.

The murchhanas yielded in Sankarabharana;

Rishabha murchhana	—	Karaharapriya
Gandhara	—	Hanumatodi
Madhyama	—	Mechakalyani
Panchama	—	Harikambhoji
Dhaivata	—	Natabhairavi

Shanmukhapriya :

Shanmukhapriya is a mela in the uttara group of melakartas.

It is the second raga in the tenth chakra Disi. It's serial number 456.

Besides shadja, and panchama, the svaras taken are : chatusruti rishabha, sadharana gandhara, pratimadhyama, suddha dhaivata and kaisiki nishada.

Its corresponding mela in the purva group is natabhairavi. As a murchhanakaraka mela, Shanmukhapriya yields three murch-

1. gandhara murchhana is Sulini, melakarta number 35;
2. Panchama murchhana is Dhenuka, melakarta number 9
3. dhaivata murchhana is Chitrabari, mela number 66.

There have been no compositions in the ragas Shamukhapriya and Natabhairavi in the pre-Tyagaraja period. Vaddenevaru is the only composition of Tyagaraja in Shanmukhapriya raga. The raga of the composition Chetulara is very controversial. There is a version of this in Natabhairavi, another version in Bhairavi and yet another in Karaharapriya.

The compositions of Patnam Subramania Iyer (Marivera dikkevaraiya Rama) and those of Papanasam Sivan (Andavane, Om Saravana) have brought into light the lustre of the raga Shanmukhapriya. Koteswara Iyer's composition also has contributed to this. This raga has become so popular since last century that many modern musicians take up this raga for alapana, neraval, kalpanasvara and other details in pallavi-rendering. In ragamalika series in the exposition of viruttams also, Shanmukhapriya features often.

A peculiarity in the sanchara around dhaivata in this raga is that sometimes the chatussruti variety is used as in the start

*
P d n d N

of the kriti - anda vane, Here when the prolonged nishada is rendered with gamaka or oscillations, the position of the preceeding dhaivata gets heightened, and the chhaya of chattus sruti creeps in, through the raga is not bhashanga, but a sampurna mela.

This raga is capable of high emotional expression and so this it has become a very popular raga-

Sancharas

p d p M - p d n d N - s - A t g f s D -
p d n d p m G - M - d p m G R S -
g r s p D - N R S -

Mohana is a janya of the 28th. Melakarta Harikambhoji. It is an audava, varja, upanga raga. The varja svaras are ma and ni.

Arohana : s r g p d ś

Avarohana : ś d p g r s

Besides shadja and panchama, svaras taken are :

chatussruti rishabha, antaragandhara and chatussruti dhaivata.

Mohana is one of the oldest ragas on earth. It features in almost all the systems of music in the world. This is because of the quality of ease and naturalness of the svaras. As shadja and panchama are the only prakriti-svaras or natural notes which do not admit of varieties, it is natural for the voice to reach the fifth note when the adhara or the fundamental is sounded, i. e., the principle of the cycle of fifths is easy to adopt. When shadja is taken, its fifth is panchama. Then the panchama of the panchama is chatussruti-rishabha, and in the next step, the panchama of chatussruti rishabha is chatussruti dhaivata, and in the further step we get the antara-gandhara. But in view of the calculations of the frequency values, the antara-gandhara becomes slightly higher (by a comma or 81/80) than the true harmonic antara-gandhara (of value $\frac{5}{4}$). Stopping at those steps, and looking back, we find that the svaras obtained are those of the Mohana-raga. Another method of arriving at these svaras will be: Starting with the antaragandhara, the principle of samvadi-thva gives rise (here the relationship of shadja to suddhamadhyama) to chatussruti dhaivata. The reason for starting at gandhara is that it is as important a svara as shadja and panchama for the reasons :

1. Like shadja and panchama, the upper-partial or harmonic heard at the position of antara-gandhara on a stretched vibrating string is the svara itself in the higher octave i.e., these are svayambhu-svaras.
2. When the prakriti svaras, shadja and panchama are sounded simultaneously, the swara heard faintly will be the antara-gandhara, bringing in the principle of summation of tones.

Starting with rishabha which is the fifth of the fifth, its fifth already noted is the chatussruti dhaivata. Thus the principles of samvadi-thva, the relationship of shadja-madhyama and shadja-panchama, the svaras of the Mohana-raga are obtained.

It can also be noted that the four strings of the western viola are tuned in the manner of fifths as the notes, 'C G D A' or the svaras sa pa ri₂ da₂.

As Mohana is a very ancient raga, there are many tunes simple and catchy in folk music. Even in the street-theatres of villages performing programmes resembling the operas, for example the Mohiniyattam, the entire background music is based only on the svaras of the Mohana-raga. Even in the operatic music of Japan, this aspect is seen.

In the hands of the vaggeyakaras of Carnatic music, Mohana-raga has been shaped with classicism. This raga corresponds to Bhup of the Hindustani system of music. The influence of this on the Carnatic system tends students of music to bring in the touch of kakali-nishada in the prayoga s d p. In carnatic style, the dhaivata of Mohana is not always a steady straight note. It is mostly rendered with a kampita or oscillation or a nokku or a stress.

Sancharas :

g p d ś ś - D g r ś D - p d ś r ś d p G -
p d ś d p g R - g p d p g R - s r g p g r s -
s r D - s r G G - g g p p d d p p g r - s r d S -

Compositions :

Gitam — Varaveena mridupani — Rupakam
Varnams — Pallavi Doraiswami Iyer,

Ramnad Srinivasa Iyengar and Vina Kuppier.

Kritis — Bhavanuta — Adi — Tyagaraja

Nannu Palimpa — " — "

Mohane Rama — " — "

Evarura — chopu — "

Enpallikkondeeralayya — Arunachalakavi

Pedda devudani — Mysore Sadasiva Rao

Tarangam-Kshemam kuru — Narayana Theerta

Javali — Mohamella — Patabhiramayya

Sriranjani :

Sriranjani is a derivative of kharaharapriya, the 22nd mela. It is a shadava upanga, varja raga, the vajra-svara being panchama.

Arohana : s r g m d n ś

Avarohana : ś n d m g r s

The purvanga and uttaranga group of svaras occupy symmetrical positions. Besides shadja, svaras taken by the raga are : chatussrutinishaba, sadarana gandhara, suddha madhyama, chatussruti dhaivata and kaisiki nishada. Since panchama is varja, importance is given to suddha madhyama in this raga. This can be seen by the fact that the two of the kritis of Tyagaraja, Brocherevere and Marubalka commence with this svara.

As panchama is vajra, in the drone accompaniment on the thambura, the panchama-string is not twanged. Some vainikas change the panchama in the tala-strings to madhyama while rendering the raga Sriranjani or any composition in a panchama-vajra-raga.

The nearest corresponding raga to Sriranjani in Hindustani music is Bhagesri.

Sancharas :

r g M - D N ś - S - d n ś r g r ś - n d N -

r ś n d m g r G - g m d n ś - n g r g ś r -

n r ś r ś n d M - g r G - n d m g R - g m d n g r -

G - g m g r s - r s r ś n - r s r s

Compositions :

Kritis	Brochevararevere	-	Adi	-	Tyagaraja
	Marubalka	-	"	-	"
	Soga suga	-	rupaka	-	"
	Bhuvini d. sudan	-	desadi	-	"
	Sari evvare	-	"	-	"
	Sridumurge	-	Kanda	-	Muthuswami Dikshitar
	Brochutaku	-	Adi	-	Karur Dakshinamurthy

Hamsadhvani :

Hamsadhvani is aljanya of 29th. mela Dhira sankarabharanam, An audava-upanga varja raga, the varja svaras being madhyama and dhaivata.

Arohana : s r g p n s

Avarohana : s n p g r s

Besides shadja and panchama, svaras taken are chatussruti rishabha, antara gandhara and kakali nishada.

Hamsadhvani raga is the creation of Ramaswami Dikshitar, father of Muthuswami Dikshitar. Hence, the compositions in this ragas are only from Tyagaraja period.

The phrase S g₂ p and its corresponding pattern from panchama, which is p n₂ r₂, are called major chords in western music. This raga Hamsadhvani consists these two chords and also these are the only svaras taken by it.

In Hamsadhvani, if d₂ comes in place of n₂, it becomes Mohana. Yet there is a vast difference between the two ragas, even in the common sancharas formed with r^r and g₂ associated with sadja and panchama. This is because of the soft tone of the tissruti-daivata in Mohana and the majestic appearances of Kakalinishada in Hamsadhvani. Both are murchhanakara ragas but with Hamsadhvani we get only one pleasing murchhana from panchama resulting in the raga nagaswarasi, whereas in Mohana, all its svaras yield pleasant audava scales :

From rishabha, the murchhana is Madhyamavati,

from gandhara, " " " Hindolam,

from gandhara, " " " Saddhasaveri, and

from panchama " " " Suddhadhanyasi.

This raga is often taken at the commencement of a concert

g r g P P - g p n t n p G - r g p n g R -
 g g p p n n i t n n p g - r g p n s t g p g t
 s n p g r - g p n s n p g r - g g p p n n p g r -
 s r g p g r s n p - g p N - s r s n p n S S -

Kritis :

Vatapi Ganapatim Bhajeham- Adi-Muthuswami Dikshitar.
 Karunaikkadale - Papanasam Sivan
 Saa sabha nibhonibha- " "
 Manasugarugademi - Patnam Subrahmani Iyer
 Sri raghukulamandu - Tyagaraja
 Adi-tala-varnam - jalajaksha - Patnam Subramani Iyer

LESSON - 6 TALA ASPECT

Introduction :

In the first lesson a brief reference was made to the nature of tāla, which we said had to do with the duration of a song. This lesson is devoted exclusively to the discussion of the concept of tāla, to the understanding of the various elements of tāla and to the description of the various types of tālas.

What is tāla? Tāla can simply be understood as time measure which is of the nature of time or which is a unit of time with which we measure the duration of other activities.

What is the function of tāla? Tāla has more than one function. Firstly it measures the duration of songs like gitam, vṛṇam kṛti. Secondly tāla regulates the flow of these songs. Thirdly tāla coordinates different activities like that of a singer and of a mṛdaṅgam performer in a music concert or like those of a dancer, Singer and the mṛdaṅgam performer in a dance concert. What do the above statements measuring the duration", "regulating the flow of music" and "coordinating activities" mean? To understand these statements, let us examine them one by one.

1. Tāla measures the duration of songs. Normally in day-to-day life, we measure the duration of any event with the help of a clock. For instance, if we wish to measure the duration of the journey by train from Madras to Bangalore, we take a clock or a watch and measure it to be of say six hours. Or the duration taken by a runner to cover a distance of 100 metres. is measured by a clock as being of, say, eleven seconds. Similarly tāla is like a clock with which we measure the duration of a song. For instance, Ādi tāla is a measure of eight units or aksaras. When this Ādi tāla is rendered along with the singing of the varṇam "Ninnukori", we find that the pallavi of the song is of the duration of two such Ādi tāla measures, i.e. two cycles or avartas of Ādi tāla. The anupallavi is of the duration of two avartas and the muktayī svara of two avartas. Thus we can compute the duration of the entire song.

2. Tala, we say, regulates the flow of the song. Talking again our example of the varna "Ninnukori" we find that the song has a flow exhibiting a pattern of four svaras. e.g.

G G - R ; - ssrr - ggrr - srgr - srds - srgr - grsr -
gggg - rsrg - rrsd - srgr - gp gp - dpds - D pg - dpgr.

The duration of each svara must be uniform throughout and similarly the duration of the group of four svaras must also be uniform. For instance, the time taken by the phrase "GG" must be the same as that of "R;" which in turn must be the same as that of "ssrr", "ggrr", etc. To ensure this uniformity in the flow of svaras, in rendering the Ādi tāla we have the actions of hands occurring at regular intervals. Within the duration of two successive actions each group of four svaras should be rendered. That is the eight actions of four Ādi-tāla, namely (1) striking with the right palm, (2) bringing down the little finger, (3) the ring finger, (4) the middle finger, followed by (5) striking with the palm, (6) waving the hand with the palm facing upwards, (7) striking the palm, (8) waving the hand with the palm facing upwards—all these actions are rendered at uniform intervals. Between two successive actions the number of svaras of the varna to be sung are four. Since the actions of hand occur at uniform intervals, the uniformity in the flow of the svaras will be maintained automatically.

Thus tāla through its actions occurring at specified intervals will regulate the flow of the song. If, however, there is a flaw in the rendering of the tāla, then the flow of the song will be affected and will go astray.

3. It was said above that tāla coordinates various activities.

Let us try to understand this function of tāla. In a music concert we usually have the main artist, a singer or vīṇā player, for instance, accompanied by a player on the mrdāṅgam. The singer renders a song, while on the mrdāṅgam the artist renders certain patterns of syllables. While the song is in the nature of svaras of varying pitches, the mrdāṅgam performer renders some combinations of syllables which might at times correspond to the flow of the song and, at times, be contrasted to it. In any case the

activities of the singer and the mrdāṅgist are different but both are guided by tāla and conform to it. Whatever pattern a mrdāṅgam player weaves within an avarta of tāla, he must conclude at the end of the avarta if the singer also concludes there.

Take, for instance, our day-to-day life. We see that the clock coordinates various activities. For instance, in our own schools and colleges, after we depart in the evening, each one of us has his own set of activities, but again all of us reassemble at 10.0' clock the next morning for classes. So it is the clock which coordinates different activities and acts as string connecting a variety of beads. Thus in a rough way we may say that tāla is a musician's clock.

Having thus understood the functions of tāla, let us examine the various elements of tāla under the heads of the various technical terms listed in our syllabus. Before we go on to that we must remember that tāla accompanies only the performance of songs, neraval and kalpana svara. During the singing of ālāpāna and viruttam there is no rendering of tāla.

Technical Terms

1. Akṣara-kāla : This is the basic and most fundamental time unit with which we make bigger sections of time to serve as measures. For instance, in life, the normal basic time unit is a 'second' which is the duration of time which elapses between the moving of the pendulum of a clock from left to right i.e., the time between two ticks of a clock. Similarly, the time which elapses between two successive actions of the hands is an akṣara-kāla. Since the speed of rendering the actions of hands can vary, the akṣara-kāla unit is also not a precise measure but is a variable or rough measure. In a fairly moderate speed of rendering a tāla, an akṣara of time could be very roughly equated to one second.

Thus in Ādi tāla we have eight actions repeated in the form of cycles. The duration between two successive actions being one akṣara-kāla, the entire Ādi tāla represents a section of eight akṣara-kālas. Similarly Aṭa tāla having fourteen actions, represents a section of fourteen akṣara-kālas. Akṣarakāla is also referred to simply as akṣara.

2. **Āvarta** : Āvarta simply means repetition and, in the context of tāla, it indicates the repetition of the actions contained in tāla sections like Ādi tāla and Aṭa tāla. While an akṣara-kāla is the most fundamental and smallest unit of time, time sections like Ādi tāla and Aṭa tāla made up a number of akṣara-kālas, act as bigger measures. These bigger measures, rendered a number of times, serve, in measuring the duration of songs, and thus, as we have seen above, the pallavi of the varṇam "Ninnukori" is of the duration of two āvartas (of Ādi tāla). Thus when tāla sections like Ādi and Aṭa are used for measuring songs, the word āvarta is used to refer to each cycle of repetition of those time sections.

3. **Kriyā** : means simply action. Tāla is a device for measuring time duration. And hence it must also be of the nature of time. For expressing this nature of time we require actions such that the duration between two actions or the period of inaction between two actions is standardised and becomes the basis for measuring bigger durations of songs. Thus kriyā refers to the basic actions of hands which manifest the time units serving as measures.

In the present day system there are chiefly three kinds of kriyas seen in tālas. The first is the striking of the right palm on the thigh or on the left palm. This is called taṭṭu or ghātam. The second kriyā is the waving of the right hand such that the open palm faces upwards. This is called viccu or visarjitam. The third action involves the downward movement of the different fingers of the hand. This is called viral-eṇṇikkai or aṅguli-niyama. Of these three kinds of kriyā, the execution of taṭṭu or ghātam is accompanied by the production of sound. Hence it is called saśabda-kriyā. 'Śabda' means sound and 'saśabda' means 'along with sound'. The other two kriyas, namely, viccu and viral-eṇṇikkai are called niśabda kriyās, i.e., devoid of sound.

The Ādi tāla as mentioned earlier consists of eight actions, namely the taṭṭu, the movement of little finger, ring finger, middle finger, a taṭṭu, a viccu, a taṭṭu and a viccu. The duration between any successive kriyas, for instance, a taṭṭu and viccu, manifests the time unit of one akṣara-kāla. Thus kriyā denotes the basic actions that manifest the time duration of a tāla.

4. **Laya** : Laya denotes the period of inaction or absence of action between two kriyas or it is the rest that follows a kriyā

commences. When the period of rest between two kriyās is long each āvarta takes a longer time for completion. Now the tāla is said to be in vilambita laya. When the period of rest between two actions is too small each āvarta of tāla is completed in quick succession and the tāla is said to be in druta laya. When the period of rest between two kriyās is neither long nor short and the āvarta is completed in medium time, the tāla is said to be in madhya laya.

We have seen that laya means the period of rest between two kriyas and we have also seen that this duration is what marks the akṣarakāla measure and thus in a way, laya is also the time measure of kāla-māna or kāla-pramāna. The word 'māna' or 'pramāna' also means magnitude or measure and the term 'kāla-pramāṇa' is quite often used as a synonym for laya. In Karnaṭak music parlance, the term kāla-pramāṇa has a more popular usage.

5. **Graha (Eduppu)** : This term relates to the connection between the tāla and the song. Graha or eduppu, literally means to grasp or to catch hold of. And the svara which we catch hold of or sing at the commencement of a song of an ālāpana is called the graha svara. In the context of tāla, graha refers to the precise moment during the rendering of the song when the tāla starts. When the tāla and song commence at the same instant, it is called same graha or sama eduppu. When the time of commencement of the tāla and that of the song do not coincide, then such a graha can be of two types. The first is called anāgata graha where the tāla commences first and after the lapse of some time the song commences. For instance the song "Marivere dikkevaraiya rāma", in Ṣaṣmukhapriya commences after the lapse of $1\frac{1}{2}$ akṣarakāla of Ādi tāla. The other kind of eduppu is atita eduppu where after the song has already commenced, the tāla commences after the lapse of some time. e.g. in the song "Śiva kāmasundari" in Mukhāri rāga, the tāla starts only after the two letters 'śiva' have been sung.

	1				0		0	
	1	2	3	4	5	6	7	8
Sama eduppu-	Va	,ta	,pi	gana	patim, bha	je,	ham	
Anagata eduppu-	;	,Ma	rive	,re	di,	,kke	vara	iya
Atita Siva eduppu-	ka	,ma	,su	,nda	ri	.	.	

Gati (Nadai) : One more term that we need to understand in the context of tāla is 'Gati' or 'Naḍai'. Gati or naḍai simply, means gait. In life we say "This man's gait is different from that man's". This could mean that the number of steps one takes in the same time. In music also nadai refers to the gait of the song. The number of svaras or, to be more precise, the number of stresses or pulses of melody which occur in one akṣarakāla determines the naḍai of the song. There are songs of different naḍais, namely one svara or stress, two, three and so on. The gati of two, four or eight stresses is called caturaśra gati, that of three stresses is called tryaśra gati; that of five, khaṇḍa; that of seven, miśra and that of nine, saṅkīrṇa. For instance, the varṇam Ninnukori cited above has a caturaśra naḍai.

Having seen some of the technical terms occurring in tāla, we now proceed to understand the structures of the various tālas figuring in our system.

T Ā L A S

The tālas occurring in our musical system can be roughly divided into two types, (a) those tālas in which the number of kriyās is equal to the total akṣarakāla value of the tāla, (the famous sapta tālas and the thirty-five tāla varieties come under this category) and (b) those tālas in which the number of kriyās is not equal to the akṣarakālas attributed to them. The different cāpu tālas, the dandi and madhyadi tālas and the short rūpaka tāla come under this category.

a) Saptatālas and the Scheme of Thirty-five Tālas :

Dhruva, Māṭhya, Rūpaka, Jhampa, Tripuṭa, Aṭa and Eka are names of the sapta tālas. And the same names figured in the

tālas of the ancient musical forms, sulādi prabandhas. These tālas were therefore known as sulādi sapta tālas. Through the process of changes made in their structure these tālas are expanded to thirty-five in number. The thirty-five tālas are formulated through a scheme which will be explained below. But before we go on to that we have to understand two more aspects of tālas namely Aṅga and Jāti.

Aṅga : We have mentioned earlier that aksarakāla is the fundamental and smaller unit of tāla. And it was said that tāla-s like ādi and aṭa were time spans made up of a number of akāra-kāla-s and which served as measures. But these tāla-s like ādi are themselves made up of certain smaller time sections called the "Aṅga -s", or the limbs of tāla. All tāla-s except the Eka tāla are made up of two or more aṅga-s. The number of such aṅga-s that we come across is seven. Their durations are of 1, 2, 3, 4, 5, 7, and 9 akṣarakālas. The first is an aṅga called anudruta and is of one akṣara duration. The second is called druta and is of two akṣara duration. The remaining are viewed not as five separate aṅgas but five varieties of a single aṅga called Laghu. Under laghu we have five types, namely laghu of 3 akṣara durations of 4, 5, 7 and 9 aksara duration. These varying durations of Laghu are referred to as jātis of laghu.

Jati : As mentioned above. Laghu stands for a class of time sections. There are five different time sections in this class and they are distinguished by the different jātis qualifying the laghu. In other words 'Jāti' describes the different types of laghu. Jati literally means 'class'. There are five classes or jatis-caturaśra, tryaśra, khaṇḍa, miśra and saṅkīrṇa. The durations of the laghus classified under the various jātis are given below.

Caturaśra jāti laghu	—	4 akṣaras
Tryaśra jāti laghu	—	3 akṣaras
Miśra jāti laghu	—	7 akṣaras
Khaṇḍa jāti laghu	—	5 akṣaras
Saṅkīrṇa jāti laghu	—	9 akṣaras

The application of the term 'Jāti' used for classifying laghus is extended to classifying the tālas in which these laghus occur. For instance, that variety of Dhruva tāla in which khaṇḍa jāti laghu occurs is also referred to as khaṇḍa jāti dhruva tāla. This kind of

designation also ensures that, in a tāla, if more than one laghu occurs, then all the laghus will be of the jāti to which the tāla belongs.

Thus jāti, when applied to laghu defines the duration of the laghu and, when applied to a tāla, defines the variety to which all the laghus, occurring in it, will belong. Thus, as seen above, khaṇḍa jāti laghu means that the duration of the laghu is of five akṣaras. And khaṇḍa jāti dhruva tāla means that all the three laghus which occur as limbs of the tāla are of khaṇḍa jāti variety.

Now we shall see how a tāla can be broken up into small aṅgas. For instance in the ādi tāla of 8 akṣarakāla duration there are three aṅga-s. These are Caturaśra jāti laghu of 4 akṣarakāla-s, followed by a druta of 2 akṣarakāla-s and another druta of 2 akṣarakāla-s.

Tāla	Ādi	—	Cat.laghu	+	Druta	+	Druta
Akṣarakāla	8	—	4		2		2

Similarly the aṭa tāla of 14 akṣarakāla-s is made up of khaṇḍa jāti laghu of 5 akṣarakāla-s, followed by another khaṇḍa-jāti laghu and two druta-s.

Aṭa tāla	=	K.laghu	+	K.laghu	+	Druta	+	Druta
14	=	5	+	5	+	2	+	2

Thus aṅga is a limb or portion of tāla of specific duration. In our tāla system we find that the kriyās executed to express different types of aṅgas are also specified. For each aṅga the number of kriyās is equal to the number of akṣarakālas. Anudruta of one akṣarakāla has one kriyā, druta of two akṣarakālas has two kriyās, tryaśra laghu has three kriyās and so on. The first kriyā of any aṅga is s taṭṭu. The laghu starts with a taṭṭu followed by finger movements starting with the little fingers 1) Tryaśra laghu will have a taṭṭu followed by two finger counts. (Little finger and ring finger). 2) Caturaśra laghu will have a taṭṭu followed by three finger counts. 3) Khaṇḍa laghu a taṭṭu followed by four finger counts. 4) In miśra laghu there will be a taṭṭu followed by six finger counts consisting of the five fingers and then going back to the little finger. 5) In saṅkīrṇa laghu there will be a taṭṭu followed by eight finger counts - firstly the five fingers and

then again the little, ring and middle fingers. In druta there is a taṭṭu andi viccu and anudruta consists of a single taṭṭu. Laghu figures in all the tālas, druta does not occur in one while anudruta occurs in only one tāla.

Aṅgas of Sapta tālas: Now we shall have a look at the aṅgas that make up the seven tālas.

1. Dhruva tāla : — laghu + druta + laghu + laghu
2. Maṭhya tāla : — laghu + druta + laghu
3. Rūpaka tāla : — druta + laghu
4. Jhampa tāla : — laghu + anudruta + druta
5. Tripuṭa tāla : — laghu + druta + druta
6. Aṭa tāla : — laghu + laghu + druta + druta
7. Eka tāla : — laghu.

In the above seven tālas all the laghus figuring in a particular tāla can belong to any of the five varieties, namely tryaśra, caturaśra, khaṇḍa, miśra, and saṅkīrṇa mentioned above. Thus, for instance, in dhruva tāla all the three laghus should be of any one of the five varieties and if, for example, the khaṇḍa laghu occurs, then the tāla will have the structure k. laghu + druta + k. laghu + k. laghu. And, as stated above, when the variety of laghu is khaṇḍa, the tāla is referred to as belonging to the khaṇḍa, jāti or the class of khaṇḍa. Thus each of the seven tāla has five varieties according to the five jāti-s to which it belongs. Thus, for instance, there are five kinds of Dhruva tāla.

1. Tryaśra jāti Dhruva tāla
2. Caturaśra jāti Dhruva tāla
3. Khaṇḍa jāti Dhruva tāla
4. Miśra jāti Dhruva tāla
5. Saṅkīrṇa jāti Dhruva tāla

The structure of these five tālas is as follows :

1. Tryaśra jāti dhruva tāla — tryaśra laghu + druta + tryaśra laghu + tryaśra laghu.
2. Caturaśra jāti dhruva tāla — caturaśra laghu + druta + caturaśra laghu + caturaśra laghu.
3. Khaṇḍa jāti dhruva tāla — Khaṇḍa laghu + druta + khaṇḍa laghu + Khaṇḍa laghu.
4. Miśra jāti dhruva tāla — miśra laghu + druta + miśra laghu + miśra laghu.
5. Saṅkirṇa jāti dhruva tāla — saṅkirṇa laghu + druta + saṅkirṇa laghu + saṅkirṇa laghu.

Similarly each of the other six tālas can have five varieties according to the five jātis. Thus in all we have thirty five tālas being formed by each of the seven tālas taking one of the five varieties of laghu at a time. $7 \times 5 = 35$.

This is the thirty-five tāla scheme. The structures of the thirty five tālas are given shown below. Symbols for denoting these aṅgas in notation have been adopted here, e.g. laghu-1, druta-O and anudruta-U. The different kinds of laghu will have the number of akṣara kalas written below the symbol, e.g. tryaśra laghu-1₃. The thirty five talas have also been given individual names.

No.	Tāla	Jāti	Structure	Akṣarakālas	Name
1.	Dhruva	Tryaśra	1 ₃ 0 1 ₃ 1 ₃	3+2+3+3=11	Mani
2.	Dhruva	Caturaśra	1 ₄ 0 1 ₄ 1 ₄	4+2+4+4=14	Śrikara
3.	Dhruva	Khaṇḍa	1 ₅ 0 1 ₅ 1 ₅	5+2+5+5=17	Pramāṇa
4.	Dhruva	Miśra	1 ₇ 0 1 ₇ 1 ₇	7+2+7+7=23	Pūrṇa
5.	Dhruva	Saṅkirṇa	1 ₉ 0 1 ₉ 1 ₉	9+2+9+9=29	Bhuvana
6.	Maṭhya	Tryaśra	1 ₃ 0 1 ₃	3+2+3=8	Sāra
7.	Maṭhya	Caturaśra	1 ₄ 0 1 ₄	4+2+4=10	Sama
8.	Maṭhya	Khaṇḍa	1 ₅ 0 1 ₅	5+2+5=12	Udaya

9.	Maṭhya	Miśra	1 ₇ 0 1 ₇	7+2+7=16	Udirṇa
10.	Maṭhya	Saṅkirṇa	1 ₉ 0 1 ₉	9+2+9=20	Rāva
11.	Rūpaka	Tryaśra	0 1 ₃	2+3=5	Cakra
12.	Rūpaka	Caturaśra	0 1 ₄	2+4=6	Patti
13.	Rūpaka	Khaṇḍa	0 1 ₅	2+5=7	Rāja
14.	Rūpaka	Miśra	0 1 ₇	2+7=9	Kula
15.	Rūpaka	Khaṇḍa	0 1 ₈	2+9=11	Bindu
16.	Jhampa	Tryaśra	1 ₃ U 0	3+1+2=6	Kadamba
17.	Jhampa	Caturaśra	1 ₄ U 0	4+1+2=7	Madhura
18.	Jhampa	Khaṇḍa	1 ₅ U 0	5+1+2=8	Caṇa
19.	Jhampa	Miśra	1 ₇ U 0	7+1+2=12	Sura
20.	Jhampa	Saṅkirṇa	1 ₉ U 0	9+1+2=7	Kara
21.	Tripuṭa	Tryaśra	1 ₃ 0 0	3+2+2=7	Śaṅkha
22.	Tripuṭa	Caturaśra	1 ₄ 0 0	4+2+2=8	Ādi
23.	Tripuṭa	Khaṇḍa	1 ₅ 0 0	5+2+2=9	Duṣkara
24.	Tripuṭa	Miśra	1 ₇ 0 0	7+2+2=11	Lila
25.	Tripuṭa	Saṅkirṇa	1 ₉ 0 0	9+2+2=13	Bhoga
26.	Aṭa	Tryaśra	1 ₃ 1 ₃ 0 0	3+3+2+2=10	Gupta
27.	Aṭa	Caturaśra	1 ₄ 1 ₄ 0 0	4+4+2+2=12	Lekha
28.	Aṭa	Khaṇḍa	1 ₅ 1 ₅ 0 0	5+5+2+2=14	Nidala
29.	Aṭa	Miśra	1 ₇ 1 ₇ 0 0	7+7+2+2=18	Loka
30.	Aṭa	Saṅkirṇa	1 ₉ 1 ₉ 0 0	9+9+2+2=22	Dhira
31.	Eka	Tryaśra	1 ₃	3	Suda
32.	Eka	Caturaśra	1 ₄	4	Māṇa
33.	Eka	Khaṇḍa	1 ₅	5	Rata
34.	Eka	Miśra	1 ₇	7	Rāga
35.	Eka	Saṅkirṇa	1 ₉	9	Vasu

In the above table we find that caturaśra jāti tripuṭa tāla is given the name Ādi tāla and it is by this name that the tāla is popularly known. But somehow the names of the other tālas have remained unfamiliar.

We also find that even though the 35 tālas have to be referred to by their jātis, in practice, the tāla names without the prefixing of the jāti refers to one particular variety of the tāla. For instance, in general, the term dhruva tāla would refer to all the five kinds of dhruva tāla, yet in particular, just the term Dhruva, tāla refers to caturaśra jāti dhruva tāla alone. Caturaśra jāti dhruva tāla may alone be referred to simply as dhruva tāla. The other four varieties will have to be referred to what the jāti names prefixed to them. Similarly the other six tāla names when used without any prefixing of jāti names refer to one particular variety.

The whole list is given below.

1. Dhruva tāla - Caturaśra jāti dhruva tāla
2. Maṭhya tāla - Caturaśra jāti maṭhya tāla
3. Rūpaka tāla - Caturaśra jāti rūpaka tāla
4. Jhampa tāla - Miśra jāti jhampa tāla
5. Tripuṭa tāla - Tryaśra jāti tripuṭa tāla
6. Aṣṭa tāla - Khaṇḍa jāti aṣṭa tāla
7. Eka tāla - Caturaśra jāti eka tāla

Students will see that the sapta tāla alaṅkāras are set in these seven tālas mentioned here.

It should also be borne in mind that the above 35 tāla represent a scheme arrived at by applying the 5 jāti division to the basic seven tālas. They do not represent the tālas in actual use. In fact, only a minority of the tālas are seen to be employed in compositions. Some tālas are used only for setting Pallavis as part of the Alapana-Tānam-Pallavī form. Alaṅkāras have been composed in all the 35 tālas but they are rarely learnt.

Extension of the Duration of the 35 Tālas

Each of these 35 tālas can be rendered with its total duration doubled or quadrupled by repeating each kriyā twice or four times. In such cases the forms of the tāla are respectively known as iraṇḍukaḷai (dvikala) or nālukaḷai (catuṣkala). In other words

when the tāla is rendered with the specified kriyās being executed once, it is orukaḷai (ekakala.) When each kriyā is rendered twice it is iraṇḍukaḷai or dvikala and when each kriyā is rendered four times it will be nālukaḷai, or catuṣkala. For example, in Ādi tāla rendered in orukaḷai, the eight kriyās, namely, the taṭṭu, little finger ring finger, middle finger, taṭṭu, viccu, taṭṭu and viccu will be executed once. When each kriyā is rendered twice, i.e. two taṭṭus, little finger twice, ring finger twice and so on, the tāla avarta will take double the duration to be completed and this from of tāla rendering would be called Ādi tāla-iraṇḍukaḷai or dvikala Ādi tāla. In nālukaḷai or catuṣkala Ādi tāla, each kriyā will be rendered four times and consequently the tāla will take four times the duration of the ekakala from.

The other Tālas

There are other tālas in use in various musical forms of our musical system. There are-

1. Miśracāpu
2. Khaṇḍacāpu
3. Rūpaka tāla - short variety
4. Deśādi
5. Madhyādi.

The main feature of these tālas is that only two kinds of kriyās are seen to be employed in their execution. That is, only the taṭṭu and viccu are used and not viralaṅṅikkai. Further we do not use the term aṅga context of these tālas as there are no formulations of time sections like lāghu, druta and anudruta. Another features seen in some of these tālas is that the kriyās occurring in these tālas are not uniformly of the same duration. In the 35 tāla scheme seen earlier we observed that the kriyās were all of uniform duration. This however is not the case in some of the tālas listed in this group. Let us now study the structure of these tālas.

1. Miśra cāpu - There are three time units in this tāla. The first one is one and a half times the duration of the following two.

	(1½)		(1)		(1)
--	------	--	-----	--	-----

All the three times units are manifested through the Ikriyā taṭṭu, i.e., there are three taṭṭus in the execution of this tāla. Some times the first kriyā is seen to be rendered as viccu instead of a taṭṭu. It does not make much difference since the completion of an avarta of the tāla is felt by the unevenness in the duration of the kriyās rather than through the difference in kriyās.

The miśra cāpu tāla may also be viewed as a very abbreviated form of the tryaśra jāti Tripuṭa tāla. Tripuṭa tāla rendered fast and with the niḥśabda kriyā unexecuted, would appear like Miśra cāpu-tāla. For this reason the Miśra cāpu tāla is also attributed a total akṣarakāla value of seven. The distribution of the akṣara value among the three units would be $3 + 2 + 2 = 7$.

It is however to be remembered that, unlike the 35 tālas, in this tāla there are not as many kriyās as there are akṣaras. In some musical compositions this tāla is seen to be employed with the order of kriyās changed, i.e. the longer kriyā comes in the middle and sometimes at the end. The three types of the tāla are illustrated below.

- a) 3 2 2
- b) 2 3 2
- c) 2 2 3

2. Khaṇḍ Cāpu - There are two time units in this tāla. The second unit has a duration one and a half times of the first.

(1½) (1)

Both the time units are manifested by the kriyā taṭṭu, i.e. there are two taṭṭus in this tāla.

The Khaṇḍa cāpu tāla may also be viewed as a fast or abbreviated form of tryaśra jāti Rūpaka tāla. Tryaśra jāti Rūpaka tāla, when rendered fast and with the niḥśabda kriyās unexecuted would appear like Khaṇḍa cāpu tāla. For this reason the total duration of this tāla is expressed as five akṣaras.

Note : Normally when merely the word Cāpu tāla is used it refers to Miśra cāpu tālaś. To indicate Khaṇḍa-cāpu it has to be specifically mentioned.

3. Rūpaka tāla (short variety):- There are three units in this tāla. All of them are of uniform duration. The three kriyās manifesting the three time units are two taṭṭus and one viccu.

This tāla may be viewed as the caturaśra jāti Rūpaka tāla rendered fast, with its niḥśabda kriyās remaining unexecuted. That is, when the Rūpaka tāla is rendered with only the commencing taṭṭus of druta and laghu being rendered in a pronounced way and the other kriyās being kept unmanifest, then the abbreviated form of Rūpaka tāla appears (however a viccu is added in short Rūpaka to sustain the duration of the second kriyā of a long measure). For this reason this tāla is also called Rūpaka and is attributed duration of six akṣaras.

4. Deśādi tāla : This tāla has four time units. All the time units are of uniform duration. There are four kriyās, namely, two taṭṭus, one viccu and one taṭṭu, manifesting these time units.

There is a similarity between this tāla and Ādi tāla. In both there are three taṭṭus. Thus when Ādi tāla is rendered with only the taṭṭus executed in a pronounced way, it sounds like Deśādi tāla. But the duration of Deśādi tāla is taken to be four akṣaras.

The compositions set in Deśādi tāla invariably commence in the viccu after a lapse of ½ akṣara. For example, the kṛti 'Entaveḍu-kondu' in Sarasvatim anohari raga is set in Deśādi tāla.

taṭṭu	Taṭṭu	Viccu	Taṭṭu
		; , * E	ntaveḍu
Kon..du	.rāgha	vā,,*	

The tāla is enjoined in the following way too. In this case, the same duration of the song has two avarta-s of tāla associated with it.

Taṭṭu	Taṭṭu	Viccu	Taṭṭu
		* E	ntave
.ḍu	ko	.ndu	.rā
gha	vā	*	

In modern times the kṛti is popularly rendered in Ādi tāla as shown below. The commencement of the kṛti takes place in the laghu but after $1\frac{1}{2}$ akṣaras.

1 ⁺	O	O
; * En tave. ḍu	ko. ndu	.rā. gha
vā . .		

5. **Madhyādi tāla** : As for as the structure of Madhyādi tāla is concerned, it is identical to that of Deśādi tāla. The difference lies in the ḍuppu or graha of the tāla from which the compositions set in it commence.

In other words there are four time units of uniform duration and four kriyās, two taṭṭus, one viccu and one taṭṭu. The songs set in this tāla commence in the viccu after a lasp of $\frac{1}{2}$ akṣarakāla. Kṛtis like 'Merusamāna' in Māyāmālavagauḷa, Namakusumamulace in Śrīrāga are set in Madhyādi tāla.

Taṭṭu	Taṭṭu	Viccu	Taṭṭu
mā...	... *	; * Me	. ru. sa

Summary

In this lesson we have tried to understand mainly

- 1) the nature of tāla,
- 2) the function of tāla,
- 3) the technical terms associated with the element of tāla,
- 4) the sapta tālas, thirty five tāla-s and their structure,
- 5) the structures of Miśracāpu, Khaṇḍacāpu, Rūpaka (short) Deśādi and Madhyādi tālas.

LESSON — 7

Notation Used in Indian Music

The method of writing down music in script form is called **Notation**. Here, the various features of music as Raga, Svara, Tala, Gameka etc are represented by means of signs, symbols and letters. By reading this script, we will have an idea about the nature of musical and rhythmic content of a composition.

The Indian system of Notation is called SRGM notation, because the music is written with the Solfa letters (SRGMPDN). Following the Svaras, we can learn how the melody runs in a composition and how it has been embedded in a Tala. The Raga and Tala are mentioned at the top of the script, along with the Arohana and Avarohana of a Raga :-

Let us now examine how musical notes and musical timings are indicated in a musical script. When the Raga of the piece is known immediately, notes taken by the Raga are understood. Any musical piece can be translated into svara-form. Infact the Sahithya or textual content of a composition is moulded on the Svara-content. Svaras are the frame which fixes the music of the Sahithya. The letters s r g m p d n - represent the seven svaras, Shadja, Rihabha and so on and they are placed in the Madhye Sthayi as we see them. If any note belongs to Tarasthayi, a dot " ." is placed on top of it and any swara in atitara sthayi will carry two dots - " . . ". When a dot is placed below the note, it will indicate Mandra sthayi - " ḍ " and two dots will be placed when the notes are in Anumandra sthayi - " ḍ ḍ ". s - smaller Roman letter will refer to sa with unit-time of one Aksharakala and capital 'S' will have two Aksharakalas.

As for symbols and signs, a comma (,) is used to indicate one Aksharakala or $\frac{1}{4}$ time measure, semicolon (;) represents 2 Aksharakalas and $\frac{1}{2}$ unit-time-measure, a semicolon and a comma (; ,) written beside each other will have a duration of $\frac{3}{4}$ time-measure. It will be a guide to know where the Eduppu of an avartam is and the reader of the script can keep to the duration of the svaras is every line when he has to learn a piece from the

notation." When a horizontal line is placed over svaras, the speed of the svaras. e.g. when s n d p - will have four Aksharakalas sñdP - will have only 2 Aksharakalas. Two lines on top of the svaras will reduce the Aksharakalas by half again (e.g.) sñdP will have only 1 Aksharakala. The first is in Prathama Chowka kala, the second in Second Madhyama Kala and the third in Third Duritha or fast speed. The variety of notes will be recognised by the number beside it as r₁, r₂, r₃ etc. In a Bhashanga Raga, the anya svara used is marked with an asterisk. (*) within brackets after an avarta, indicates the avarta must be repeated. Hyphens are used for phrasings i.e. a group of notes within two hyphens, should be played or sung continuously. Wavy lines are used for gamakas, to indicate which svaras must be shaken. Ascending and descending lines reveal, how in the process of sounding a note, we move from a different note either above or below it. When a note is to be stressed the sign 'W' is placed over it.

How are avartams of a Tala illustrated by the symbols. A laghu or finger counting is represented by a vertical line with the type of Jathi written beside it. e.g. /3. Tisra laghu.

Drutam is written down with a circle (O), Anudrutam with a crescent as (C) double bar // is used at the close of the avarta and laghu and Drutams and Anudrutam in an avarta are divided by a vertical line. An avartam will be written down as

/4 O O
s r g m / p d / n s

in Aditalam which is also called Chatusrajathi Thripata Talam. The device of naming the note variety by resorting to vowel changes in its sound has existed as Ra, Ri and Ru in India Centuries back. Kudimiyamalai inscriptions bear testimony to that. (Pallava period inscriptions).

The Western system of writing music is called Staff Notation. Here the music is written on five parallel lines, each line standing for a note and the space between the two lines indicates the note that falls between the notes that are represented on the two lines. C D E F C A B, stands for Sa, Ri, Ga, Ma, Pa, Da and Ni of the Sankarabharanam Scale which is called the Major Scale. When a svara increases in pitch, the accentuated note is represented with the sign ♯ which is called sharp. For e.g. 'F' sharp will be written as F♯. When note is diminished in pitch it is called flat and the sign ♭ will be attached to it (e.g.) Eb will be reduced E. Bass, alto and tenor are used in this system. Flatural will be in its allotted place. This will be indicated by fractional counts.

LESSON - 8

Harmony, melody and Polyphony

Harmony, melody and polyphony :

Harmony and Melody are two forms of musical expression, each having its own value of musical importance. In harmony music progresses in a succession of groups of notes called chords. It is perfect harmonising in concordance to produce a wholesome effect. In this form of plural melodies one will be a main melody and notes in the mould of each chord, which accompany the main line will be in definite and perfect relationship with one another. Naturally the chords and the main melody in combination will produce an impressive musical effect. They have their fractional musical timings called quiver, minim etc.

Melody :

It is a tune on which a succession of notes, in a line, produce a mellifluous tone. No two notes are sounded together when a melodic tune is sung. It is called single line melody. Indian musical system has excelled in developing this system. The Indian raga, which is but an elaboration of a melody based on particular scale, is proof of this development.

Polyphony :

Is a type of music where several melodies, all of equal importance, are in combination, each having its individual recognition when simultaneously performed.

LESSON - 9

PADA ASPECT

The rules that apply to the structure of a sahithya on the content of a musical composition are called prosodical appliances to a piece. Some technical terms that refer to the variety of elements in prosodic usage in a sahithya are pada, Prasa, Yati and the Anga. Pada (Padam) refers to a line in the composition. The build up of the entire composition will have to be in proportion to this line or two or the first avarta in the beginning beautifully.

In a composition set in Adi Tala, the Pada may be of one or two avartas. In Rupaka, Thripata and Chapu Talam, a Padam may consist of four or eight avartas. Very rarely two avartas are used.

Examples :

Mariyade gathura in Sankarabharanam one avartam

Ma Janaki Chetta pattaga-in Kamboji - in Kamboji in two avartas.

Ni Bakthi bagyasuda - in Jayamanohar, Rupaka tala in 4 avartams.

Endukudayaradhu - in Todi in Thripata Talam in 4 avartams
Bajare Baja manasam in chapu tala in 4 avartams

We will know how many avartas are in a composition, by enaming the Pallavi and a rumpallavi and charanam of a piece.

In Adi Tala compositions, we can get the clue to gauge the length of the pallavis from the charanam (e. g.) Nannupaalimpa in Mohanam. In the Kritni Sithapathe in Khamas, the anupallavi gives us the clue that the pada is of two avartas.

PRASA :

The second syllable in a pada is known as prasa. It is called dvitriyakshara prasa or Adi prasa. It is called 'Ethugai' (எதுகை)

in Tamil. In this prasa, there is corresponding similarity of the second letter in all the lines of the stanza. Example Todudaiya, Kadudaiya. Antya Prasa - means that the rhymes at the end of the lines are alike. Example : Dikshithar, Jayadeve.

Anuprasa repetition of similar letters. Daksha Sikshane, etc. in Muthuswamy Dikeshthar's Krithi in Sankarabaranam, Balakanakamaya of Tyagaraja in Atana and many more.

The recurring sound of anuprasa letters increases the beauty of the piece and accentuates its charm.

YATI :

The alliterating initial syllables of the avartas are called Yatis. It is called 'Monai' (மோனை) in Tamil, Ramaswamy Sivan, brother of Maha Vaidyanatha Iyer got the title 'Monai Singam' because he excelled in composing Yati patterns. Prasa Yati is a variety of Yati, where the Prasa letter is used to fill the void created by the absence of the Yati. It is commonly used in padyas and other varieties of verses. Yamakam is another means of decorating the sahithya. Here the same letter will be repeated but each time it will be joined with other words to become quite a responsible feature. Padagarbam and Padachadam are means of dividing the pallavi. It helps to divide the first half of the Pallavi from the rest of the Pallavi.

Manipravala sahithya, in a musical reference to many languages in the Sahithya, some of the compositions of Diksitar are of this type.

When a svara and the letter in the sahithya carry the same sound, it is also called svarakashara.

* { pa da sa sa ni da pa
pa da sa ro ia

* pa da sa - common to svara and sahithya of the piece is svarakashara.

Prasa, Yati, Yamaka, Manipravala, Sahithya, Svarakashara, Srotovaha and Gopucha Yatis and even Padagar ba und Padachada

beautifying the text of a musical piece and may be called decorative features in a musical composition.

In srotovaka alaṅkāram the beginning of the sahitya, the phrasing will be short and will enlarge and widen itself like the river which widens when it reaches the Sea.

(e.g.)

எவ்வரே

ஸரி எவ்வரே

சாமி சஞ்ஜி எவ்வரே

நாசாமா சஞ்ஜி எவ்வரே

நாமசாமி சஞ்ஜி யெவ்வரே

Gopucha alaṅkāram will be broad in the beginning and will reduce its width step by step, till it comes tapering towards the end like the tail of a cow. (e.c)

Tyagaraja Yoga vaibhavam

Agraja Yoga vaibhavam

Rajayoga vaibhavam

Yoga vaibhavam

vaibhavam

bhavam

vam